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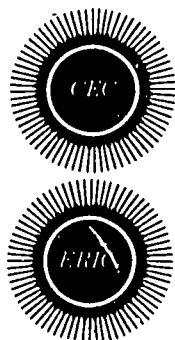
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ABSTRACT

The annotated bibliography, one in a series of over 50 similar listings related to handicapped and gifted children, contains 91 references selected from Exceptional Child Education Abstracts dealing with physical facilities, educational or institutional, for exceptional children. The entries, which include texts, journal articles, research reports, program guides, and other literature, treat such topics as environmental influences, acoustics, architectural programing, building design, classroom arrangement, design needs, lighting, sanitary facilities, and space utilization. Bibliographic data, availability information, indexing and retrieval descriptors, and abstracts are given for all entries. Subject and author indexes are provided. (KW)

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PHYSICAL FACILITIES

A Selective Bibliography

February 1971

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The Council for Exceptional Children
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Arlington, Virginia 22202

This bibliography is a product of the Information Processing
Unit, CEC-ERIC Information Center on Exceptional Children.

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EC 033 019E

The CEC Information Center on Exceptional Children

With a grant from the US Office of Education, the CEC Information Center was established at The Council for Exceptional Children to serve as a comprehensive source of information on research, instructional materials, programs, administration, teacher education, methods, curriculum, etc. for the field of special education. The Center functions as the Clearinghouse on Exceptional Children in the Educational Resources Information Centers (ERIC) program and also as a member center in the Instructional Materials Centers Network for Handicapped Children and Youth (IMCNHCY). In addition, the CEC Center's program includes a commitment to a concentrated effort towards the development of products which will interpret research results into educational methods and practices.

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The abstracts in this bibliography have been retrieved from the computer stored information of the CEC Information Center on Exceptional Children. Abstracts represent the Center's complete holdings on the topic as of the date indicated.

How to Read the Abstract

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Some bibliographies in *Exceptional Children Bibliography Series* contain author and/or subject indexes. In these bibliographies, readers seeking work on a specific aspect of the general topic may consult the subject index to be referred to specific abstract numbers. Abstracts dealing with several topics may be identified by finding the same abstract number under two or more subjects in the subject index.

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478 - 547	2.00		

ABSTRACTS

ABSTRACT 10125

EC 01 0125 ED 016 351
 Publ. Date Mar 67 11p.
 Hall, Robert E.; Lehman, Eileen F.
Some Colleges and Universities with Special Facilities to Accommodate Handicapped Students, a Directory.
 Office Of Education, Washington, D. C
 EDRS mf, hc

Descriptors: exceptional child education; physically handicapped; physical facilities; orthopedically handicapped; colleges; universities; directories; special services; physical education; vocational rehabilitation; special counselors; counseling services; federal programs; handicapped; college buildings

The directory lists 190 United States colleges and universities enrolling more than 1000 students in 40 states and the District of Columbia which provide at least two of six conveniences for handicapped students--(1) on-campus housing ramps, (2) classroom ramps, (3) library ramps, (4) beveled curbs, (5) reserved parking, and (6) modified toilet facilities. The directory also indicates the presence of related services--special counselors, regular vocational rehabilitation, service visits, and adapted physical education. Further descriptive information about each institution includes location, control (public or private), length of program offered, type of student body (coed, male, female), and whether the institution participates in the Public Law 85-926 (as amended) Traineeship-Fellowship Programs. The directory notes other federal financial aid programs briefly--college work-study programs, National Defense students loans, Educational Opportunity grants, and guaranteed loans. Also cited are some state and private sources of scholarships and loans. (DF)

ABSTRACT 10169

EC 01 0169 ED 018 905
 Publ. Date 67
 Bayes, Kenneth
The Therapeutic Effect of Environment on Emotionally Disturbed and Mentally Subnormal Children.
 Society For Emotionally Disturbed Child., Montreal, Quebec
 EDRS not available

Descriptors: exceptional child research; mentally handicapped; emotionally disturbed; environmental influences; behavior; children; adults; therapeutic environment; building design; architecture; perception; visual perception; research needs; research projects; vocabulary; mental illness; surveys; opinions; planning; administration; visual environment; behavior change

Current research and thought on the effects of architectural form and color in the treatment of emotionally disturbed

and retarded children are surveyed in this publication. To a lesser extent, it covers the relationship of therapy to behavior, normal children to handicapped children, normal adults to mental patients, and children to adults. Architects, psychiatrists, psychologists, educators, anthropologists, and sociologists in Great Britain, Europe, the United States, and elsewhere were consulted, and their findings, opinions, practices, and principles are presented in chapters on terminology, background studies, planning and form, color, and other sensory perceptions. The need for research is clarified, methods and problems are discussed, and proposals for future research are provided. Appendixes specify the terms of the Kaufmann Award, list persons and institutions consulted and contacted, and cite 97 references. This document is available from the Society for Emotionally Disturbed Children, 1010 St. Catherine West, Room 623, Montreal, Quebec, Canada, for \$2.00. (JZ)

ABSTRACT 10543

EC 01 0543 ED 022 315
 Publ. Date 65 14p.
 Abeson, Alan; Ackerman, Paul
An Architectural-Educational Investigation of Education and Training Facilities for Exceptional Children (National Education Association, Washington, D.C., September 9-10, 1965).
 Council For Exceptional Children, Washington, D. C.
 EDRS mf, hc
 The Council For Exceptional Children, NEA, 1201 16th Street, N. W., Washington, D. C. 20036.

Descriptors: exceptional child education; environmental influences; educational needs; interdisciplinary approach; handicapped children; design needs; building design; classroom design; flexible facilities; architecture; school buildings; school design; student needs; research needs; facilities; furniture; equipment; conference reports

The proceedings of a conference called to institute a dialogue between the architectural and educational professions are summarized. Areas considered include deterrents to efficient dialogue, the need for research, parameters of research (foundational questions; flexibility; furniture, materials, hardware, and teaching equipment; information transmission), 23 suggested educational needs of exceptional children with as many suggested architectural solutions, and building designs for these children following and resulting from the conference. (Author/JD)

ABSTRACT 10629

EC 01 0629 ED 024 189
 Publ. Date (65) 55p.

Vanston, A. Rorke And Others
Design of Facilities for the Mentally Retarded; Diagnosis and Evaluation, Education and Training, Living Units. Hospital and Medical Facilities Series.

Public Health Service (DHEW), Washington, D. C., Division Of Hospital And Medical Facilities
 EDRS mf
 Superintendent Of Documents, U. S. Government Printing Office, Washington, D. C. 20402 (\$0.35).

Descriptors: exceptional child services; mentally handicapped; program planning; facilities; physical facilities; facility guidelines; day care programs; residential programs; sheltered workshops; architectural programing; ancillary services; construction costs; clinical diagnosis; medical services; residential care; educable mentally handicapped; trainable mentally handicapped; custodial mentally handicapped

Elements of architectural planning of new physical facilities for the mentally retarded detailed include programing and writing the project program. Design concepts are considered, and the following are specified: types of physical facilities with sample floor plans; elements of physical facilities, such as staff offices, activity areas, living units, and ancillary areas; basic planning consideration; and construction costs. A chart treats four levels of retardation; tables suggest areas for various facilities and recommend lighting levels. A bibliography cites 23 items. (LE)

ABSTRACT 10942

EC 01 0942 ED 026 786
 Publ. Date Dec 67 59p.
Design for All Americans. A Report of the National Commission on Architectural Barriers to Rehabilitation of the Handicapped.
 Rehabilitation Services Administration (DHEW), Washington, D. C.
 EDRS mf
 Superintendent Of Documents, U. S. Government Printing Office, Washington, D. C. 20402 (\$0.50).
 A Report Of The National Commission On Architectural Barriers To The Rehabilitation Of The Handicapped.

Descriptors: exceptional child education; facilities; physically handicapped; design needs; handicapped; senior citizens; standards; architecture; building design; facility guidelines; research needs; facility requirements; legislation; architecture; government (administrative body)

The need for environmental improvement to benefit the handicapped and the elderly is stated and the following are detailed: priorities for action, the lack of public awareness, progress to date, and

reasons why the problem of architectural barriers persists. Listings are provided of the Commission's recommendations for legislation, research and demonstrations, education and information, and other areas. Appendixes name the witnesses before the Commission and members of the federal government liaison group; report on federal, state, and local efforts to eliminate architectural barriers; compare building codes with the American Standards Association specifications; related the report of the American Institute of Architects, Potomac Valley Chapter, on barrier free architecture; provide a checklist of publications relating to architectural planning for the physically handicapped; and cite selected references on architectural planning. The transmittal letter and roster of Commission members are included. (JD)

ABSTRACT 10947

EC 01 0947 ED 026 791
 Publ. Date 67 76p.
Architectural Workshop; Conference Report of the Architectural Institute (Portland, Oregon, October 16-17, 1967).
 National Association For Retarded Children, New York, New York
 Social And Rehabilitation Service (DHEW), Washington, D. C.
 EDRS mf,hc
 National Association For Retarded Children, 420 Lexington Avenue, New York, New York 10017.

Descriptors: exceptional child education; mentally handicapped; facilities; classroom environment; physical environment; facility requirements; institutional environment; educational facilities; residential centers; mental health; multiply handicapped; aurally handicapped; architectural programming; design needs; educational specifications; handicapped

Conference papers consider designing facilities to meet the needs of the mentally retarded and other handicapped persons. Complete texts and summaries are provided of R.B. Price on environmental design, E.D. Helsel on architectural barriers, H. Gordon on preschool programs and facilities, and H. Palmer on training centers for young adults. Also included are papers by H. W. Maier on living units for institutionalized retarded; O. Kurren on living units for the mild and moderate retarded; W. Johnson on facilities for the deaf; C. Woodcock on facilities for the blind retarded; and J. Falick on joint mental health/mental retardation facilities. Summaries alone are given for 19 additional papers on the theories and needs of architectural design for the handicapped, with attention also paid to the international symposium and to specific types of facilities, such as schools and residential units for the mentally, physically, and otherwise handicapped. (JD)

ABSTRACT 10948

EC 01 0948 ED 026 792
 Publ. Date 68 261p.

Designing Instructional Facilities for Teaching the Deaf: The Learning Module; Symposium on Research and Utilization of Educational Media for Teaching the Deaf (4th, Lincoln, Nebraska, February 5-7, 1968).

Nebraska University, Lincoln, Department Of Educational Administration; Midwest Regional Media Center For The Deaf, Lincoln, Nebraska
 Office Of Education (DHEW), Washington, D. C., Captioned Films For The Deaf Branch
 EDRS mf,hc
 OEC-3-7-000199-0199(019)

Descriptors: exceptional child education; aurally handicapped; facilities; audiovisual instruction; deaf; instructional technology; acoustics; educational facilities; design needs; architectural programming; facility requirements; lighting; school planning; classroom furniture; multimedia instruction; classroom design; educational specifications; environmental design

Eleven conference papers treat designing learning modules, or complete instructional facilities, for the deaf. The following aspects are considered: the changing classroom, a multimedia approach to teaching American history, a project design for a special school, and educational implications of architecture for the deaf. Further topics are acoustical design of classrooms for the deaf, the use of amplification in educating deaf children, furnishings in the workshop classroom, and lighting in the learning module. Creating environments for learning, providing through architecture for social needs, and planning the deaf child's complete formal education are also discussed; a report from Captioned Films for the Deaf, conference and discussion summaries, foreword, and introduction are provided. Appended are the program and roster of participants. (JD)

ABSTRACT 11107

EC 01 1107 ED N.A.
 Publ. Date Jun 66 68p.
 Haring, Norris G.; Whelan, Richard J.
The Learning Environment: Relationship to Behavior Modification and Implications for Special Education. The University of Kansas Symposium.
 Kansas University, Lawrence, School Of Education
 Office Of Education (DHEW), Washington, D. C.
 EDRS not available
 Kansas Studies In Education; V16 N2
 Jun 1966

Descriptors: exceptional child research; mentally handicapped; achievement; behavior change; experimental programs; educable mentally handicapped; arithmetic; reading; academic achievement; reinforcement; classroom design; language arts; handwriting; classroom arrangement; behavior problems; individualize instruction; classroom environment; educational facilities

In the second year of a 4-year project, 17 mentally handicapped children, eight of

whom were carry overs from the first year, participated in an experimental classroom. Their chronological ages ranged from 7-10 to 13-8, mental ages from 4-2 to 8-11, and IQ's from 50 to 72; their reading achievement scores ranged from 0 to 1.6 grade (mean .3), arithmetic scores from 0 to 1.8 (mean .5). Former teachers described their classroom behavior as marked by refusal to study or follow instructions, by tantrums, pouting, or poor attention. A classroom-laboratory which held from five to seven students at a time was designed with three study carrels, two work and three writing tables, six desks, a quiet room, an observation room, and a waiting room. All students received individualized instruction and had their time in the classroom increased as they learned to work productively. Reinforcement and programs following programed instruction principles were given. Tests at the end of the year indicated gains in reading skills (range 0 to 1.3, median .6 grade) and arithmetic (range .3 to 1.4, median .8). All could work productively alone for an hour or more and could engage in appropriate school conduct. Additional findings and implications are presented. (JD)

ABSTRACT 11108

EC 01 1108 ED N.A.
 Publ. Date May 66 124p.
 Salmon, F. Cuthbert; Salmon, Christine F.

Sheltered Workshops; An Architectural Guide.

Oklahoma State University, Stillwater, School Of Architecture
 Vocational Rehabilitation Administration (DHEW), Washington, D. C.
 EDRS not available

Descriptors: exceptional child services; sheltered workshops; facilities; facility guidelines; handicapped; building design; building materials; work environment; design needs; architecture; physically handicapped; facility requirements; vocational rehabilitation; physical facilities; community services; site selection; program planning; program design; special services; architectural programming

Based on the observation of 24 sheltered workshops of diverse types and sizes, the guide presents information on architectural programming and planning. The role of the sheltered workshop, community needs, site considerations, and the program are described. In addition, planning principles, work principles, and the physical plant are discussed and graphically illustrated. An appendix provides the following: a checklist for planning and construction; an analysis of materials and methods of construction; a glossary of commonly used terms; American Standard Specifications for making buildings and facilities accessible to and usable by the physically handicapped; and a list of workshops studied. (JD)

ABSTRACT 11109

EC 01 1109 ED N.A.
 Publ. Date Oct 55 5p.
 Foote, Franklin M.

Classrooms for Partially Seeing Children.

National Society For The Prevention Of Blindness, New York, New York
EDRS not available
Exceptional Children; V22 N1 P318-20, 41-2 Oct 1955

Descriptors: exceptional child education; visually handicapped; partially sighted; educational facilities; classrooms; equipment; classroom furniture; illumination levels; classroom design; classroom arrangement

Aspects of special classrooms or resource rooms for partially sighted children are described, including type and placement of furniture, special equipment, storage, illumination of the room, and dimensions of the sight conservation room. (JD)

ABSTRACT 11110

EC 01 1110 ED N.A.
Publ. Date 60 15p.
Nugent, Timothy J.

Design of Buildings to Permit Their Use by the Physically Handicapped; A National Attack on Architectural Barriers.

National Society For Crippled Children And Adults, Chicago, Illinois;
President's Committee On Employment Of The Physically Handicapped, Washington, D. C.

EDRS not available

Reproduced From New Building Research, Fall 1960, Publication No. 910, Building Research Institute, National Academy Of Sciences, National Research Council.

Descriptors: building design; facilities; facility guidelines; facility requirements; physically handicapped; cerebral palsy; orthopedically handicapped; visually handicapped; aurally handicapped; research reviews (publications); research projects; environmental influences; special programs

Concerned with the nonambulatory disabled, the semi-ambulatory, the sight and hearing handicapped, and the cerebral palsied and other neurologically impaired, the paper considers the increased numbers of those so handicapped and describes the need for facilities they can use. Basic research and development projects reported include both research reviews and experiments assessing materials, design, and handicapped persons in normal environments. Two programs are surveyed: the University of Illinois rehabilitation-education program and the adaptation and construction of facilities at the University; and the American Standards Association Project to make buildings and facilities accessible and usable to the physically handicapped (ASA Project A-117). An appendix provides a work outline for the ASA Project which lists specifications for several types of facilities. (JD)

ABSTRACT 11113

EC 01 1113 ED N.A.
Publ. Date 62 23p.
Carter, John Harvey

Educational Environment for the Orthopedically Handicapped Including the Cerebral Palsied.

California State Department Of Education, Sacramento, Bureau Of Special Education

EDRS not available

John Harvey Carter, 417 20th Street, Sacramento, California 95814.

Descriptors: exceptional child education; physically handicapped; cerebral palsy; orthopedically handicapped; facilities; educational facilities; equipment; educational specifications; facility guidelines; learning characteristics; units of study (subject fields); educational programs; curriculum; school services; physical therapy; occupational therapy; speech therapy; learning activities; recreational facilities; classrooms; school architecture

Prepared as a guide to planners and administrators, the report considers architectural problems in the design of educational facilities for orthopedically handicapped and cerebral palsied children. Factors influencing the learning process and selection of instructional materials are discussed; and daily programs suggesting subject areas, activities, equipment, and schedules are provided for the preprimary, primary, and advanced groups. Further aspects considered include therapy facilities, shop, speech, physical and occupational therapy activities, kitchens, resting rooms, and classrooms and suggested classroom equipment. Also described are special equipment requirements and sizes, controls for lights and so on, braille identification of facilities, hazards, walks, ramps, toilet rooms, playground facilities and equipment, color, floor materials, storage, and access. Nine references are cited. (JD)

ABSTRACT 11114

EC 01 1114 ED N.A.
Publ. Date Apr 52 5p.
Birren, Faber

The Emotional Significance of Color Preference.

American Occupational Therapy Association, New York, New York
EDRS not available

American Journal Of Occupational Therapy; V6 N2 P1-5 Mar-Apr 1952

Descriptors: color planning; building design; environmental influences; physical environment; psychotherapy; individual characteristics; emotionally disturbed; therapeutic environment

Relationships between color preference and personality are presented; the range of the spectrum from red (warm, exciting), to blue (cold, subduing) is discussed. Attitudes toward color are related to moods; love of color is connected with a responsive personality and interest in the world while preference for form is connected to inner directedness. The effect of color is described for the mentally ill, psychotics, epileptics, neurotics, and hysterical persons. Specific colors of red, yellow, green, blue-green, blue, brown, orange, purple, maroon,

and pink are linked to personality traits. The psychotherapeutic value of color and its diagnostic and therapeutic use in buildings are considered. (RP)

ABSTRACT 11115

EC 01 1115 ED N.A.
Publ. Date Sep 67 5p.

Birren, Faber

Color It Color.

EDRS not available

Reinhold Publishing Corporation, 430 Park Avenue, New York, New York 10022.

Progressive Architecture; V48 N9 P129-33 Sept 1967

Descriptors: color planning; design needs; lighting; psychological design needs; visual stimuli; illumination levels; task performance; physical environment; physiology

A discussion of the world of color considers the sources of color, light, color production in the brain, and the effects of different kinds of light and color on man, animals, plants, insects, fish, and birds, especially in growth and sexual activity. Brilliant light and warm colors are said to produce increased muscular tension, attraction to the stimulus, automatic arousal, and increased cortical activity. The effects of dim light and cool color are presented: relaxation of muscles, withdrawal from stimulation, and a drop in respiration rate, heart action, and blood pressure. The visual aspects of color described are the amount of light necessary for sight, glare, and abuse of the eyes; color laws are suggested for designers. Included in the psychological aspect of colors are the influence of specific colors, reactions of the mentally ill, and practical applications of research. Conclusions stated are the use of light and warm colors to produce outer directed behavior and the use of softer light and cooler hues to reduce distraction and direct action inward. (RP)

ABSTRACT 11117

EC 01 1117 ED N.A.
Publ. Date 65 111p.

The Effect of Windowless Classrooms on Elementary School Children; An Environmental Case Study.

Michigan University, Ann Arbor, Architectural Research Laboratory
Educational Facilities Laboratories, Inc., New York, New York

EDRS not available

The University Of Michigan, Department Of Architecture, Architectural Research Laboratory, Ann Arbor, Michigan 48104.

Descriptors: exceptional child research; windowless rooms; attitudes; building design; classroom design; teacher attitudes; parent attitudes; student attitudes; photographs; educational facilities; school architecture; elementary schools

To investigate environmental effects on teachers and children three case studies were undertaken; one during a school year when classrooms had windows, one during a year with no windows, and one

during a 1/2 year with windows restored. Teachers interviewed pupils individually and conducted a questionnaire survey to gather student opinions on their scholastic performance. After one year in windowless classrooms, all teachers except one reported that she liked her room very much. The one exception did not object to lack of windows but to her room location. Reasons for liking the rooms were less distraction, more even heat, more flexibility in seating and furniture arrangement, and increased wall space. Results of parent questionnaires indicated that the minority who opposed the study at the beginning continued to oppose it while those who were favorable felt the same way at the end. Children appeared to be indifferent to lack of windows and did not often comment on this to teachers, but the majority said they had wished for windows when asked. Comparisons of achievement for pupils in windowless rooms with pupils who had windows showed no significant differences in learning; what effect there was seemed to depend on whether or not a group was task oriented. Conclusions were that it is not likely that children will be adversely affected by the elimination of windows. Floor plans, section drawings, pictures of the school, results of questionnaires, teacher ratings, and absentee rates are included. (RP)

ABSTRACT 11118

EC 01 1118 ED N.A.
Publ. Date 67 95p.
Benet, James And Others
SCSD: The Project and the Schools.
Educational Facilities Laboratories,
New York, New York
EDRS not available
Educational Facilities Laboratories, 477
Madison Avenue, New York, New York
10022.

Descriptors: exceptional child education; school architecture; component building systems; building design; educational specifications; flexible facilities; lighting; acoustics; ventilation; heating; ceilings; movable partitions; air conditioning; structural building systems; construction costs; school design; equipment manufacturers; space utilization

A discussion of the School Construction Systems Development project (SCSD), conducted in California and responsible for 11 schools built or under construction, mentions the consultant role of the staff, the role of local school districts, the development of component parts used in the schools, financial costs, the origins of the project, specifications, and the cooperation of manufacturers in developing the components. Educational requirements, flexibility, school organization, environmental requirements, structure, acoustics, fire ratings, roofing and tolerances, heating, air conditioning, ventilating, lighting, ceilings, performance criteria, partitions, casework and cabinets, and lockers are described, and diagrams are provided; also provided are pictures of the components in use, floor plans, and names, addresses, and

construction data on the schools involved. Technical consultants are listed. (RP)

ABSTRACT 11119

EC 01 1119 ED N.A.
Publ. Date 66 207p.
Green, Alan C., Ed. And Others
Educational Facilities with New Media. Final Report.
National Education Association, Washington, D. C., Department Of Audiovisual Instruction;
Rensselaer Polytechnic Institute, Troy, New York, Center For Architectural Research
Office Of Education (DHEW), Washington, D. C.
EDRS not available
National Education Association, 1201
Sixteenth Street, N. W., Washington, D. C. 20036 (Stock No. 071-02302, \$4.50).

Descriptors: exceptional child education; educational facilities; architectural programming; building design; classroom design; flexible facilities; resource centers; studio floor plans; lighting; climate control; acoustical environment; classroom furniture; projection equipment; audiovisual aids; mass media; instructional technology; educational specifications; educational innovation; planning; educational needs

An overview of learning media introduces a guide for policy makers on educational facilities and new media. Concerns and directions in contemporary education, the role of media in innovations, status and trends in learning media, implications for planning, and programming and defining building needs are considered. A guide for the design professions provides information on learning media and facilities, general principles for planning schools, nine categories of facility types: independent study, small group, medium group, large group, flexible group, renovated classrooms, resource facilities, production and support facilities, and new building types; a design criteria is also provided. Technical concerns discussed are lighting, acoustics, climate, furniture, projection systems, and other equipment. An appendix lists resumes of three meetings on facilities and meeting participants. (RP)

ABSTRACT 11120

EC 01 1120 ED N.A.
Publ. Date May 66 187p.
Bailey, Roger And Others
Mental Health Facilities for Inpatient Adolescents.
Architectural Psychology Interdepartment Program, Salt Lake City, Utah
National Institute Of Mental Health, Bethesda, Maryland;
Utah University, Salt Lake City, Department Of Architecture;
Utah University, Salt Lake City, Department Of Psychology
EDRS not available
PH-43-65-1068

Descriptors: exceptional child research; emotionally disturbed; adolescents; in-

stitutional facilities; psychiatric hospitals; architectural programming; building design; educational facilities; special services; administration; personnel; site selection; admission criteria; educational programs; group living; occupational therapy; recreational programs; psychiatric services; design needs; regional programs; community services

Interviews with consultants and visits to institutions are analyzed to determine present practices and trends in treating adolescent mental patients. Information gathered concerns philosophy of treatment and program, the adolescent, and facilities. Three schemes for living areas and architectural character are considered, and suggestions are made and specifications offered for site, admitting and screening, administration and staff living areas, therapy areas, educational program and facilities, and ancillary and utility areas. Findings indicate that plans for facilities are dependent upon the staff-patient ratio and upon regional climatic and social problems, that adolescents require more space than adults; that facilities should be located convenient to the community they serve; and that they should be regarded as a residential school which also provides vocational education. Additional findings concern the ineffective nature of short term help, the need for a continuum of services and facilities within the community, and the use of additional and varied services to lessen the load placed on inpatient facilities. (JD)

ABSTRACT 11121

EC 01 1121 ED N.A.
Publ. Date 18 Apr 68 8p.
Colvin, Ralph W.
The Design Process in Special Education Facility Planning Applied to a Day and Residential Facility for the Emotionally Disturbed and Brain Injured.
Child Welfare League Of America, New York, New York
EDRS not available
Paper Presented At The Annual Convention Of The Council For Exceptional Children (New York, New York, April 18, 1968).

Descriptors: exceptional child education; emotionally disturbed; educational facilities; residential centers; residential schools; flexible facilities; classrooms; corridors; offices (facilities); building design

The development of a residential treatment center for emotionally disturbed children considers the need for a flexible structure, the number of children that can best be cared for, and the preferable size of educational, recreational, or living groups. The teacher's needs are discussed in terms of small groups and the nearness of offices of supportive staff members. Suggestions are made for consultation with technically knowledgeable people in areas for research and professional training which involve problems of sound and light control, air conditioning, observation areas, and audiovisual

equipment. Planning for privacy in bathrooms and bedrooms, classroom size, and nonstimulating decor are discussed. Also discussed is the provision of attractive surroundings as a means of introducing the child to beauty. (RP)

ABSTRACT 11122

EC 01 1122 ED N.A.
Publ. Date Oct 67 4p.
Maier, Henry W.

Designing Residential Living Units for Persons with Mental Retardations. Washington University, Seattle, School Of Social Work

EDRS not available

Paper Presented At The Architectural Conference On Mental Retardation Facilities (Portland, Oregon, October 16-17, 1967).

Descriptors: exceptional child services; mentally handicapped; institutional facilities; design needs; self care skills; group living; attendants; community involvement

Residential living units for the mentally handicapped are discussed. The following suggestions are made and elaborated upon: the unit as an arena for a program in daily living; such an arena requires space for multiple activities; and the unit needs to be planned for what the residents can do. Also considered in terms of design needs are the importance of the attendant and teamwork; of contact with the ordinary community life; and of small groups that the residents themselves can manage. (JD)

ABSTRACT 11123

EC 01 1123 ED N.A.
Publ. Date Oct 64 82p.
Salmon, F. Cuthbert; Salmon, Christine F.

The Blind, Space Needs for Rehabilitation.

Oklahoma State University, Stillwater Vocational Rehabilitation Administration (DHEW), Washington, D. C.

EDRS not available

Descriptors: exceptional child services; visually handicapped; rehabilitation centers; facility requirements; blind; site selection; site development; program planning; architectural programing; equipment; medical services; visually handicapped orientation; visually handicapped mobility; ancillary services; personnel needs; design needs; administration; communication skills; occupational therapy; homemaking education; vocational education; recreational facilities

Based on the observation and analysis of 14 rehabilitation centers for the blind, the report presents to both architect and administrator the following environmental considerations: geographical location, community features, site considerations, site development, program development, planning principles, and environmental experience. Areas of rehabilitation activity explained for the architect include medical services, psychological and social services, mobility and orientation, physical conditioning,

communications, occupational therapy, techniques of daily living, vocational evaluation, recreation, residential centers, administration and general activities, and staff-client space estimate. Thirty-five illustrations and 23 references are provided. (JD)

ABSTRACT 11124

EC 01 1124 ED N.A.
Publ. Date Jan 65 4p.
Singer, Ellis

How Gallaudet Sounds Out Deafness in Ideal Acoustical Environments.

American Hearing Society, Washington, D. C.

EDRS not available

Hearing News; V33 N1 P9-12 Jan 1965

Descriptors: exceptional child services; aurally handicapped; facilities; auditory evaluation; audiometric tests; acoustical environment; facility requirements; construction (process); testing; research

Acoustical chambers designed to control ambient noise are described. Both the research and testing for which the chambers are used are discussed as well as the evolution of the facilities, some of the first soundproof rooms. Details of the construction and design of the facilities and the noise attenuation specifications are given. Four figures are included. (JD)

ABSTRACT 11125

EC 01 1125 ED N.A.
Publ. Date Jul 67 27p.

Bair, Howard V.; Leland, Henry

The Utilization and Design of Physical Facilities for the Rehabilitation of Mentally Retarded. Final Project Report.

Parsons State Hospital And Training Center, Kansas

Vocational Rehabilitation Administration (DHEW), Washington, D. C.

EDRS mf,hc

VRA-RD-1319-G-64

Descriptors: exceptional child research; mentally handicapped; institutional facilities; architectural programing; audiovisual aids; closed circuit television; flexible facilities; movable partitions; space utilization; classrooms; controlled environment; rehabilitation programs; building design; professional education

To investigate the appropriate design and utilization of physical facilities being constructed as a rehabilitation center, a variety of centers was examined. Conclusions were that flexibility in construction of the physical plant, including nonpermanent walls and fixtures was necessary; program planning should be included in architectural discussions to avoid later modifications; facilities should be designed with the concept of a teaching hospital in mind; equipment and materials for program development, especially technical aids and audiovisual facilities, should be acquired on an experimental basis; design must be based on changing community needs; and the service, research, professional training, and demonstration areas should overlap and flow into and out of

each other. Consideration was given to the role of the staff and the kinds of areas they would need, classrooms for training programs, a television studio and control room, advanced planning for installation of audiovisual equipment, varied use of the same space, and facilities for behavior modification training. (Author/RP)

ABSTRACT 11126

EC 01 1126 ED J28 587
Publ. Date Jan 67 29p.

Architectural Considerations for Classrooms for Exceptional Children.

Texas Education Agency, Austin, Division Of Special Education

EDRS mf,hc

Descriptors: exceptional child education; handicapped children; educational facilities; classroom design; visually handicapped; physically handicapped; blind; partially sighted; learning disabilities; minimally brain injured; aurally handicapped; mentally handicapped; deaf; educable mentally handicapped; trainable mentally handicapped; speech handicapped; emotionally disturbed; facility requirements; educational specifications

Definitions are provided of the following exceptionalities: blind, partially sighted, physically handicapped, minimally brain injured, deaf, educable mentally retarded (primary, junior, and senior high levels), trainable mentally retarded, speech handicapped, and emotionally disturbed. Architectural guidelines specify classroom location, size, acoustical treatment, heat and light, ventilation, electrical outlets, bulletin boards and chalkboards, floors, and drinking fountain, sink, and counter space. Additional specifications are given for certain exceptionalities. (JD)

ABSTRACT 11127

EC 01 1127 ED N.A.
Publ. Date 68 7p.

Abeson, Alan

The Design Process in Special Education Facility Planning.

Council For Exceptional Children, Washington, D. C.

EDRS not available

Council For Exceptional Children, NEA, 1201 Sixteenth Street, N. W., Washington, D. C. 20036.

Symposium Held At Annual International CEC Convention (46th, New York City, New York, April 14-20, 1968).

Descriptors: exceptional child education; educational facilities; school planning; interdisciplinary approach; architects; teacher role; design needs; classroom design; evaluation needs; handicapped children; professional personnel

Factors which affect the quality of planning for special education facilities and the effectiveness of the educational program are considered. The problem of presenting the needs to the architect in sufficient detail is described and suggestions are made for bringing educators and architects together. The need for

educators to clarify terminology and the need for architects to visit the schools and interview staff members and members of the planning committee are cited. Also discussed is the usefulness of thorough evaluation in determining real needs and desires rather than requiring popularized concepts which may not be used. (RP)

ABSTRACT 11128

EC 01 1128 ED N.A.
 Publ. Date 63 129p.
 Fitzroy, Daniel; Reid, John Lyon
Acoustical Environment of School Buildings.
 Educational Facilities Laboratories, Inc., New York, New York
 EDRS not available
 TR-1
 Educational Facilities Laboratories, Inc., 477 Madison Avenue, New York, New York 10022.

Descriptors: acoustics; acoustical environment; building design; interior space; flexible facilities; administrator attitudes; student attitudes; teacher attitudes; classroom design; flooring; school buildings; movable partitions; corridors; spatial relationship; photographs; elementary schools; secondary schools; colleges; design needs

To study the trend in interior design toward more openness and the resulting acoustical problems, students, teachers, and administrators were interviewed to determine the minimum acoustical separation necessary to allow a group to work effectively. Field tests were conducted in the rooms of 35 elementary and secondary schools and in two colleges to measure noise reduction between rooms. None met the criteria of 40 decibels of noise reduction. Floor plans of the rooms were drawn up with noise reduction levels for the door open or closed and for the class in session or silent. Conclusions were that classrooms are less satisfactory when a high articulation index and a reverberant environment are present, even when noise reduction is high; when a room was near optimum reverberation environment, lower noise reduction was acceptable. Recommendations are made for flexible room arrangements, use of absorptive floor coverings, better insulation around music and gym rooms, careful attention to sound level when using audio equipment, and higher sound interception in the lower grades. (RP)

ABSTRACT 11129

EC 01 1129 ED N.A.
 Publ. Date 65 94p.
Workshop on Educational Facilities for Exceptional Children (May 14-15, 1965).
 American Institute Of Architects, Washington, D. C., Committee On School And College Architecture
 Educational Facilities Laboratories, Inc., New York, New York
 EDRS not available

Descriptors: exceptional child education; incidence; educational needs; legislation; federal legislation; educational

facilities; mentally handicapped; physically handicapped; emotionally disturbed; handicapped children; educational specifications; architectural specifications; architectural programing; flexible facilities; school design; classrooms; classroom design; design needs; public schools

The proceedings include Kathryn Dice's remarks on the incidence and educational needs of exceptional children and on the impact of federal legislation upon facilities. A subsequent question-and-answer period is transcribed, with Dr. Dice and the participants considering environmental design and its educational and psychological implications. Panel discussions with the same concerns as the question-answer session treat the mentally retarded, the physically handicapped, and the emotionally disturbed. (JD)

ABSTRACT 11130

EC 01 1130 ED N.A.
 Publ. Date 67 7p.
 Berenson, Bertram
Architecture for Exceptional Children.
 Hampton Institute, Virginia, School Of Architecture
 EDRS not available
 Hampton Institute, Division Of Architecture, Hampton, Virginia 22369.

Descriptors: exceptional child research; handicapped children; building design; environmental influences; visual stimuli; interdisciplinary approach; behavior change; teaching machines; teacher role; research reviews (publications); facilities

The dichotomy between research results and the architect's design is discussed, and two projects are described, one which used red and green slides to teach moderately retarded young adults about traffic signals and another which provided mirrors for emotionally disturbed girls. The Hawthorne studies on environmental criteria are also described, including experiments in the learning rate of the retarded when taught by regular teachers or by machines, the reduction of visual stimuli, and modification of room shape. The need for architects to communicate with other disciplines, flexibility to allow for future modification, and the need for designers to understand the nature of exceptionalities are discussed. (RP)

ABSTRACT 11131

EC 01 1131 ED N.A.
 Publ. Date Dec 67 14p.
 Wolf, James M.
Physical Facilities Guidelines for Handicapped Children. Fitting Facilities to the Child, Part Three.
 EDRS not available
 Editor, School Management, 22 West Putnam Avenue, Greenwich, Connecticut 06830.
 School Management; V11 N2 P40-54 Dec 1967

Descriptors: exceptional child education; educational facilities; educational specifications; facility guidelines; educa-

tional equipment; classroom design; physically handicapped; aurally handicapped; visually handicapped; partially sighted; blind; mentally handicapped; educable mentally handicapped; trainable mentally handicapped; emotionally disturbed; speech therapy; physical therapy; occupational therapy; equipment; school services; psychological services

Synthesized from the recommended standards of the only eight states that have them, the guidelines list the variations needed in classrooms and other physical facilities for the handicapped. Areas considered include the physically handicapped, the deaf and hard of hearing, the partially sighted, the blind, the educable mentally retarded, the trainable mentally handicapped, and the emotionally handicapped. Also treated are physical and speech correction programs, psychological examination programs, and occupational therapy programs. For each, location, size, construction, and equipment are specified. Photographs of the equipment and facilities at the Human Resources School in Albertson, New York, are included. (JD)

ABSTRACT 11132

EC 01 1132 ED N.A.
 Publ. Date Nov 64 3p.
 Bryant, Daniel C.
Design for the Mentally Handicapped.
 National Society For Crippled Children And Adults, Chicago, Illinois
 EDRS not available
 Rehabilitation Literature; V25 N11 P391-2,40 Nov 1964

Descriptors: exceptional child education; mentally handicapped; custodial mentally handicapped; trainable mentally handicapped; lighting; climate control; flooring; ceilings; sheltered workshops; classroom design; color planning; environmental influences; design needs; sanitary facilities; crafts rooms; movable partitions

Creating a physical environment for the mentally retarded at a school and training center is discussed. Designing facilities for the custodial retarded focuses on the need for heated floors, a work height counter and nearby sink with a spray nozzle, a storage cupboard, a playroom or classroom of modest living room size, and a heating and ventilating system that provides above average amounts of air. Extra toilets for trainable retardates with counters and sinks nearby, and control of distractions such as lighting, color, windows, and noise in classrooms are suggested. Also suggested are a living-dining room and a craft room with sturdy tables, counters, and water supply. Recommendations for a workshop include block or brick walls, concrete floor, skylights, acoustically absorbent ceiling, uniform lighting, many electrical outlets, ceiling outlets, compressed air, a heating system with ventilation from outside, flexible shelves, movable partitions, a central control station, and truck size door openings. (RP)

ABSTRACT 11133

EC 01 1133 ED N.A.
 Publ. Date 68 3p.
 Berenson, Bertram
The Planned Environment: An Educational Tool.
 Council For Exceptional Children,
 Washington, D. C.
 EDRS not available
 International Journal Of Educational
 Science; V2 P123-5 1968

Descriptors: environmental influences;
 classroom environment; classroom de-
 sign; corridors; multisensory learning;
 individual needs; flexible facilities; be-
 havior change

Manipulation of the environment to
 produce behavior change is discussed in
 terms of the influence of the physical
 properties surrounding the learner. The
 concept of special spaces for special
 activities focuses on the use of hallways
 as a resource device. Caution is suggest-
 ed in the area of flexibility as constancy
 can be beneficial. Ken Isaac's learning
 box, in which all six sides contained
 information, is described and recom-
 mended as a classroom resource center
 audiovisually and kinesthetically pro-
 ducing information which can be or-
 dered and structured to meet individual
 needs. (RP)

ABSTRACT 11134

EC 01 1134 ED N.A.
 Publ. Date Apr 69 13p.
 Abeson, Alan
**The Physical Environment: A Brave
 New World.**
 Council For Exceptional Children,
 Washington, D. C.
 EDRS not available
 The Council For Exceptional Children,
 1201 Sixteenth Street, N. W., Washing-
 ton, D. C. 20036.
 Paper Presented At The Annual CEC
 Convention (Denver, Colorado, April
 1969) And Published In CEC Selected
 Convention Papers, 1969.

Descriptors: exceptional child educa-
 tion; handicapped children; educational
 facilities; flexible facilities; school de-
 sign; space utilization; design needs;
 corridors; educational equipment; physi-
 cal environment

The failure of classrooms to reflect edu-
 cational programing and the inadequacy
 of facilities for exceptional children are
 cited. Needs in the planning and design
 of facilities for such children are enu-
 merated as follows: to accommodate
 change in methods, materials, and
 equipment; to create expansible, con-
 vertible, versatile, and malleable space;
 to adjust to the child's changing needs as
 he grows; to involve practitioners in
 planning so they will utilize the poten-
 tial of the space designed; and to articu-
 late educational programs upon which
 to base the environment. Presented as
 analytical systems for assessing the physi-
 cal environment-special education rela-
 tionship are the strictly environmental
 and strictly educational systems and the
 system of environmental conceptualiza-
 tions, which are described, include pri-

vacy, scale, consistency, transition, use-
 ability, and movement. Solutions demon-
 strated by slides collected by The Coun-
 cil for Exceptional Children's special
 project on Physical Environment and
 Special Education are reviewed, includ-
 ing multipurpose corridors, womb (or
 quiet) rooms, equipment modifications,
 storage areas, and architectural charac-
 ter. Physical environment is, in closing,
 envisioned as a teaching tool which may
 well advance education for exceptional
 children. (JD)

ABSTRACT 11135

EC 01 1135 ED N.A.
 Publ. Date Nov 66 22p.
 Spivack, Mayer
**Some Psychological Implications of
 Mental Health Center Architecture.**
 Harvard Medical School, Cambridge,
 Massachusetts, Laboratory Of Commu-
 nity Psychiatry;
 Medical Foundation, Inc., Boston, Mas-
 sachusetts
 Permanent Charities, Inc., Boston, Mas-
 sachusetts;
 National Institute Of Mental Health,
 Bethesda, Maryland
 EDRS not available
 PH43-66-1150

Paper Presented At The Annual Meet-
 ing Of The New England Psychological
 Association (6th, Boston, Massachusetts,
 November 11-12, 1966).

Descriptors: exceptional child services;
 mental health clinics; environmental in-
 fluences; space utilization; behavior pat-
 terns; visual perception; lighting; build-
 ing design; corridors; acoustics; design
 needs

The lack of alternative design models
 for comprehensive community mental
 health centers and the need for planners
 to produce information are discussed.
 The following conceptual positions are
 thus offered to define research problems:
 particular behavior settings result in
 standing behavior patterns; physical en-
 vironment exists as a cultural and social
 artifact displaying messages about its
 users; social and personal spaces affect
 communication; a need exists for posses-
 sion of territory, a piece of the physical
 environment; and physical environment
 exists as a sensory stimulus field. Impli-
 cations of the above positions consid-
 ered include the undifferentiated be-
 havior settings of flexible or dayroom
 space and of corridors to the use of
 indestructible finishing materials, and
 the territorial behavior of assorted ani-
 mals. Photographs are explained illus-
 trating the problems discussed. (JD)

ABSTRACT 11136

EC 01 1136 ED N.A.
 Publ. Date (67) 21p.
 Johnson, Warren E.
**Some Considerations in Designing
 Facilities for the Deaf.**
 Portland Center For Hearing And
 Speech, Oregon
 EDRS not available

Descriptors: exceptional child educa-
 tion; aurally handicapped; deaf; hearing

aids; auditory training; lipreading; tac-
 tual perception; acoustical environment;
 acoustics; design needs; classroom envi-
 ronment; building materials; building
 design; construction needs; lighting; fire
 protection; flooring; loop induction sys-
 tems

Dependence upon the use of hearing
 aids, auditory training, speechreading or
 lipreading training, and tactile channels
 of learning are presented for considera-
 tion in designing facilities for the aurally
 handicapped. Conditions which change
 sound are listed: shape and size of room,
 whether or not room is furnished, mate-
 rials of walls and ceiling, kinds of fur-
 nishings, and position of the listener.
 Reflection of sound from room surfaces
 and the level of sound pressure are
 discussed. Also discussed is the problem
 of reverberation, monaural hearing aids,
 speech intelligibility, and the treatment
 of reverberation. Different types of nois-
 es, noise carriers, and insulation are
 described; also considered are the sound
 level of noise, planning facilities for the
 deaf, and electrostatic shielding or
 ground systems. (RP)

ABSTRACT 11137

EC 01 1137 ED N.A.
 Publ. Date 63 95p.
 Seagers, Paul W.
Light, Vision and Learning.
 Better Light Better Sight Bureau, New
 York, New York
 EDRS not available
 Better Light Better Sight Bureau, 750
 Third Avenue, New York, New York
 10017.

Descriptors: exceptional child educa-
 tion; visually handicapped; vision;
 ophthalmology; eyes; anatomy; light;
 lighting; illumination levels; physics;
 safety; visual perception; classroom en-
 vironment; identification; environmen-
 tal influences; glare

Designed for use in teacher education,
 the text describes perceptual and visual
 development in the growing child, the
 anatomy and physiology of the eye, and
 eye care and protection. The physics of
 light and the relationship of light and
 seeing are discussed; environmental rec-
 ommendations are made for home,
 school, and classroom. Accompanying
 the text are 28 figures and one table, a
 glossary of 96 terms, a bibliography with
 86 citations, and a list of 18 agencies
 which provide information and materi-
 als. (JD)

ABSTRACT 11138

EC 01 1138 ED N.A.
 Publ. Date 28 Apr 67 25p.
 Izumi, K. And Others
**Some Architectural Considerations in
 the Design of Facilities for the Care
 and Treatment of the Mentally Ill.**
 American Schizophrenia Foundation,
 Ann Arbor, Michigan
 EDRS not available

Descriptors: exceptional child services;
 emotionally disturbed; facilities; psy-
 chological design needs; architectural

programing; psychiatric hospitals; therapeutic environment; sanitary facilities; psychological patterns; interior space; space utilization; flexible facilities; spatial relationship; professional personnel; visual perception

The problems of architectural design of facilities for the mentally ill are presented, along with considerations related to architectural articulation which seem desirable regardless of the psychiatric program. An unpublished paper by H. Osmond is reviewed which stresses the need for an environment modified to enhance the supportive psychosocial structure and to meet the perceptual anomalies of the mentally ill. Architectural solutions detailed include those which provide privacy, social interaction, and adaptability as well as alternative movements and arrangements and distinctive space-time relationships and forms and functions. The solutions are explained in both psychiatric and architectural terms. A bibliography for architects cites 19 references. (JD)

ABSTRACT 11139

EC 01 1139 ED N.A.
Publ. Date Spr 64 59p.
Relocatable School Facilities.
Educational Facilities Laboratories,
New York, New York
EDRS not available
Educational Facilities Laboratories, 477
Madison Avenue, New York, New York
10022.

Descriptors: educational facilities; classroom design; classroom arrangement; mobile classrooms; flexible facilities; construction costs; interior space; architectural programing; structural building systems; component building systems; prefabrication; photographs; school planning; enrollment trends; lighting; climate control; classroom furniture

The support that fluctuating school enrollments and the shortage of classrooms lend to the need for relocatable facilities is discussed; the development of these facilities is considered. Guides for planning relocatable structures include the following: four basic types and adequate space, appearance of the units, and the relationship of the units to the main buildings; portable facilities and size limitations, structural system, limits to moving, and foundation; size limits, structure, and foundation of mobile, divisible, and demountable facilities. Factors to consider in calculating costs, a checklist of items relevant to moving the facilities, and an estimate of demounting costs are provided. Case studies of movable classrooms in 21 cities give specifications and photographs of the facilities. New developments in portable units and a plan for the future are included. (RP)

ABSTRACT 11140

EC 01 1140 ED N.A.
Publ. Date 65 765p.
School Environment Research Publication No. 1; Environmental Abstracts.

Michigan University, Ann Arbor, Architectural Research Laboratory
Educational Facilities Laboratories,
Inc., New York, New York
EDRS not available

Descriptors: environmental influences; visual stimuli; auditory stimuli; learning characteristics; lighting; color planning; climate control; illumination levels; equipment standards; group behavior; abstracts; research reviews (publications); acoustics; task performance; social environment; individual characteristics; behavior; environmental research; group dynamics; annotated bibliographies

Annotated abstracts are presented of selected documents which describe the relationships linking environment with human behavior. Each abstract provides bibliographic information and a summary of the document; some abstracts state the document's conclusions and comments. The bulk of the literature abstracted is from periodicals and is either research or reviews of research. The abstracts are arranged in five categories. The first category, Environment and the Human Senses, includes abstracts on stimulus through the visual, auditory, or olfactory sensory channel, on collateral stimulus through several channels, and on equipment design; the second, Behavior and the Atmospheric Environment, annotates documents on problems related to the atmosphere in general, behavioral problems related to temperature only, and problems related to temperature and humidity. Behavior and the Luminous Environment, the third category, contains problems related to illumination in general and to intensity of illumination, influence of chromatic differentials, and illumination systems and intensity standards; the fourth, Behavior and the Sonic Environment, ranges over the effect of sound on behavior, physiological and psychological reactions to sonic variations, and communication and task performance in relation to sound; and Behavior and the Social Environment, the final category, consists of characteristics of group composition, the individual in relation to group situations, task performance related to individuals or groups, and learning related to the individual and the group. (JD)

ABSTRACT 11141

EC 01 1141 ED N.A.
Publ. Date 65 23p.
Larson, C. Theodore; Paraskevopoulos, Stephen C.A.
School Environments Research Publication No. 3; Environmental Analysis.
Michigan University, Ann Arbor, Architectural Research Laboratory
Educational Facilities Laboratories,
Inc., New York, New York
EDRS not available

Descriptors: environmental research; environmental influences; hearing processes; individual characteristics; data collection; research methodology; infor-

mation services; information storage; information retrieval; design needs; school design; taxonomy

A discussion of the effects of the environment on behavior begins with the frame of reference of the environment as a stimulus field of which the subject is an intrinsic part. Cosmic, human, and cultural factors which compose the environment are listed as are categories in these areas: intelligence, welfare, control, production, and a range of characteristics and factors belonging to learners. Also mentioned are particular learning categories and the specification of environmental case studies. Proposals for processing information include a consideration of the generation and flow of information, three aspects of questionnaires, development of a unified information service, three examples of processing information on file cards, and mechanized storage and retrieval of data. Implications for environmental design include the concept of development, design continuum, learning environments, and suggested standards. (RP)

ABSTRACT 11142

EC 01 1142 ED N.A.
Publ. Date Nov 68 7p.
Clouser, Richard A.
The Changing Classroom.
EDRS not available
American Annals Of The Deaf; V113
N5 P1008-14 Nov 1968

Descriptors: exceptional child education; aurally handicapped; deaf; classroom design; climate control; acoustics; lighting; windowless rooms; classroom arrangement; electronic equipment; flexible facilities; movable partitions; carrels

The well designed classroom for the deaf is discussed; and climate control, lighting, and sound control are considered. Windowless classrooms are recommended, although not for younger hearing impaired students. Specifications are made for classrooms for three groups of students: ages 1 to 6, 7 to 11, and 11 to graduation. Programed learning areas, common to all classrooms, are described, and flexibility in classroom design is considered. (JD)

ABSTRACT 11143

EC 01 1143 ED N.A.
Publ. Date Nov 68 6p.
Niemoeller, Arthur F.
Acoustical Design of Classrooms for the Deaf.
Central Institute For The Deaf, St. Louis, Missouri
Nebraska University, Lincoln, Teachers College, Department Of Educational Administration;
Office Of Education (DHEW), Washington, D. C., Captioned Films For The Deaf
EDRS not available
American Annals Of The Deaf; V113
N5 P1040-5 Nov 1968

Descriptors: exceptional child education; aurally handicapped; deaf; classroom design; acoustics; acoustical envi-

ronment; flooring; ceilings; ventilation; site selection

Acoustical design of classrooms for the deaf is discussed, with its objectives of providing both large signal and low noise levels. Aspects described include reverberation time, noise criteria, location of the classrooms, and location of the school building. For each, building details and finishing materials are prescribed; acoustical data are specified when relevant. Two figures and three references are provided. (JD)

ABSTRACT 11144

EC 01 1144 ED N.A.
Publ. Date Mar 67 8p.
Hewett, Frank M.
Educational Engineering with Emotionally Disturbed Children.
California University, Los Angeles, Neuropsychiatric Institute
EDRS not available
Exceptional Children; V33 N7 P459-67 Mar 1967

Descriptors: exceptional child education; emotionally disturbed; behavior change; teacher role; operant conditioning; classroom design; classroom arrangement; reinforcement; student evaluation; teaching methods; classroom furniture; classroom environment

An engineered classroom is presented as a behavior modification model for emotionally disturbed children, in both institutional and public schools. The ways in which it provides a setting for implementation of a hierarchy of educational tasks, meaningful rewards for learning, and an appropriate degree of teacher structure are explained. The classroom layout, the students, classroom operations, and interventions are described; implications of the engineered classroom design are also discussed. (Author/JD)

ABSTRACT 11146

EC 01 1146 ED N.A.
Publ. Date Apr 67 29p.
McMahan, Marie
Educational Media Center; The Library's New Book.
Western Michigan University, Kalamazoo, Educational Resources Center
Nebraska University, Lincoln, Teachers College, Department Of Educational Administration;
Office Of Education (DHEW), Washington, D. C., Captioned Films For The Deaf
EDRS not available
Paper Prepared For Symposium On Research And Utilization Of Educational Media For Teaching The Deaf (Lincoln, Nebraska, April 10-12, 1967).

Descriptors: exceptional child services; aurally handicapped; instructional materials; deaf; instructional materials centers; school libraries; audiovisual aids; equipment evaluation; cataloging; library services; equipment maintenance; equipment storage; equipment utilization; library facilities; library circulation; library technical processes

The use of the educational media center in the education of the deaf is discussed. Supportive services of such a center are described, including selecting materials and equipment for purchase and classifying and cataloging, storing, scheduling, distributing, maintaining, and processing and inventorying materials and equipment. Utilization of instructional materials as another service of the center is discussed in terms of helping teachers and pupils select and utilize material, and also helping them produce media. Center facilities listed include reading areas, storage spaces, independent learning areas, office space for members of the media staff, and areas for work, circulation, teacher preview, equipment, production, and classroom-workshop. A table is provided summarizing the major quantitative standards for school library programs. (JD)

ABSTRACT 11147

EC 01 1147 ED N.A.
Publ. Date Apr 67 16p.
Jackson, William D.
Media Production Facilities in Schools for the Deaf.
Tennessee University, Knoxville, Southern Regional Media Center For The Deaf
Nebraska University, Lincoln, Teachers College, Department Of Educational Administration;
Office Of Education (DHEW), Washington, D. C., Captioned Films For The Deaf
EDRS not available
Paper Prepared For Symposium On Research And Utilization Of Educational Media For Teaching The Deaf (Lincoln, Nebraska, April 10-12, 1967).

Descriptors: exceptional child education; aurally handicapped; instructional materials; audiovisual aids; educational needs; special schools; books; films; deaf; school libraries; instructional materials centers; material development; photography; display panels; educational equipment; library services

Past and present inadequacies of instructional facilities are reviewed with emphasis placed upon present facilities and recent relevant federal legislation for the deaf. Commercially produced materials are criticized and the need for modification and production of media is presented. Characteristics of schools for the deaf to be considered in developing a framework for local production are listed; three phases are then proposed for the development of facilities for media production, including preplanning, setting up, and implementing the program. Specifications are given for the facilities themselves, and the following production techniques are explained: illustration, preservation, identification, duplication, photography, and display. (JD)

ABSTRACT 11148

EC 01 1148 ED N.A.
Publ. Date Nov 68 10p.
Berenson, Bertram
The Educational Implications of Architecture for the Deaf.

Hampton Institute, Virginia, Division Of Architecture
Nebraska University, Lincoln, Teachers College, Department Of Educational Administration;

Office Of Education (DHEW), Washington, D. C., Captioned Films For The Deaf

EDRS not available
American Annals Of The Deaf; V113 N5 P1030-9 Nov 1968

Paper Prepared For The Symposium On Research And Utilization Of Educational Media For Teaching The Deaf (Lincoln, Nebraska, February 5-7, 1968).

Descriptors: exceptional child education; classroom design; design needs; aurally handicapped; classroom furniture; emotionally disturbed; learning disabilities; architects

The problem of architecture and the exceptional child and a number of questions regarding the critical human variables are posed by an architect. The physical environment is considered as an aid to learning; means of adapting the environment and of compensating for sensory loss and impairment are discussed. The architect's task in determining what type of architecture is necessary is treated, along with the possibility of providing facilities which are partially disposable and will thus not outlive their usefulness. The work of The Council for Exceptional Children's special project on Physical Environment and Special Education is reviewed, both in surveying the state of the art and in testing the environment. Four models are then presented: a classroom for deaf children, a classroom for children with learning disabilities, furniture sized to children, and part of a classroom for emotionally disturbed children. (JD)

ABSTRACT 11149

EC 01 1149 ED N.A.
Publ. Date (65) 12p.
Some Organizational Considerations of Elementary Classrooms for Educable Mentally Retarded.
Kansas State Department Of Public Instruction, Topeka, Division Of Special Education
EDRS not available

Descriptors: exceptional child education; mentally handicapped; educable mentally handicapped; classroom design; space utilization; classroom furniture; space dividers; equipment storage; display panels; trainable mentally handicapped; skill centers; elementary grades; secondary grades; electrical appliances; classroom arrangement

Organizational considerations are outlined for classrooms for the educable mentally retarded at the elementary and secondary levels and for the trainable retarded at the children's and teenagers' levels (these two levels are not distinguished). Aspects detailed include instructional areas, space needs, location or accessibility, traffic circulation and areas of pupil concentration, and furniture and equipment. Also covered for the educable classroom at the secondary

level and the trainable are special utility needs, storage, physical and psychological environmental needs, and other considerations. (JD)

ABSTRACT 11150

EC 01 1150 ED N.A.
Publ. Date Mar 67 32p.
Caudill, William
What Works and What Fails in School Design.
EDRS not available
Nation's Schools; V79 N3 Mar 1967

Descriptors: gymnasiums; dining facilities; classroom design; flooring; movable partitions; flexible facilities; library facilities; ceilings; climate control; glass walls; school design; school planning; educational facilities; corridors; classroom arrangement; school space; space utilization; building materials; lighting; architectural elements

One hundred and ten innovations and design features are presented with sketches and descriptions. Commentary includes the advantages or disadvantages of the features and is intended to provide those interested in school planning or construction with some idea how projects did or did not work or how they were or could be modified to be more valuable. (RP)

ABSTRACT 11537

EC 01 1537 ED 029 439
Publ. Date Jul 67 43p.
Making Facilities Accessible to the Physically Handicapped.
New York State University Construction Fund, Albany
Vocational Rehabilitation Administration (DHEW), Washington, D. C.
EDRS mf, hc
State University Construction Fund, 194 Washington Avenue, Albany, New York 12210.

Descriptors: exceptional child education; handicapped children; design needs; campus planning; college buildings; educational facilities; facility guidelines; dormitories; sanitary facilities; building design; physically handicapped; visually handicapped; aurally handicapped; parking facilities; fire protection; State University of New York

Guidelines on performance criteria for the State University of New York consider two main types of handicapped: the ambulant and semi-ambulant, including some physically handicapped, the visually and aurally handicapped, and persons with cardiac conditions; and persons confined to wheel chairs. The handicapped and planning for them are discussed. Specifications are detailed for the following aspects of exterior design: entrances, ramps, stairs, doors, walks, intersections, gratings and manholes, parking, and bus service. Interior design criteria cited are for general university facilities, restrooms, bedrooms, stairs, elevators, doors, conveniences, and fire protection. Persons involved in or contributing to the study are named, and 19 references are listed. (JD)

ABSTRACT 11595

EC 01 1595 ED N.A.
Publ. Date 67 64p.
The Intermediate School; The Report of an Architectural Design Competition for the Conversion of New York City's Joseph H. Wade Junior High School (J 117 Bronx) to House; New Life for Old Schools.
Great Cities Program For School Improvement, Chicago, Illinois, Research Council
EDRS not available
The Research Council Of The Great Cities Program For School Improvement, 5400 North St. Louis Avenue, Chicago, Illinois 60625.

Descriptors: exceptional child education; building design; school design; classroom design; classroom arrangement; library facilities; school shops; audiovisual centers; dining facilities; auditoriums; offices (facilities); junior high schools; resource centers; laboratories; gymnasiums; flexible facilities; architectural elements; construction needs

Results of an architectural design competition to convert a junior high school into a more modern and flexible facility in which students could be divided into three smaller groups are presented. A summary lists the required educational components: classrooms, including science labs, typing, art, home economics and industrial arts, and music rooms; auxiliary rooms such as the library, audiovisual center, teachers' planning center, science preparation and storage rooms, and a resource center; administrative offices; gym and locker rooms; an auditorium; a cafeteria including two dining rooms, serving units, storerooms, and food preparation and cleanup rooms; four storage rooms; toilets; and custodial employees' rooms. Floor plans and diagrams are provided of the designs of the five architectural firms which won the top prizes and honorable mention and two firms which received special mention. (RP)

ABSTRACT 11614

EC 01 1614 ED N.A.
Publ. Date Nov 66 4p.
Dixon, Carmen C. And Others
Divided We Learn.
EDRS not available
Hearing And Speech News; V34 N6 P8-11 Nov 1966

Descriptors: exceptional child education; aurally handicapped; hard of hearing; attention span; attention control; attention; visual stimuli; classroom arrangement

Portable partitions being utilized by the teachers of an integrated hard of hearing program to decrease visual distraction of the students and to increase their attention spans are discussed. The group teaching situations, in which each of the young hearing impaired children sits at a single desk with head set and controls attached to it are described; arrangement of desks in a semicircle with opaque screens placed between them with the teacher seated at eyelevel and

in full view of four or five children is described; the advantage of each child being in an office and functioning independently of other youngsters is mentioned. Other advantages of the arrangement, which allows for either group or individual instruction, which are considered are used in specific auditory training, speech reading, language development and therapy, and speech correction situations. By protecting the child from visual distractions which he finds difficult to ignore, the arrangement also aids in the development of attention and concentration. (GD)

ABSTRACT 11691

EC 01 1691 ED 031 011
Publ. Date Apr 67 43p.
Outdoor Recreation Planning for the Handicapped. Bureau of Outdoor Recreation Technical Assistance Bulletin.
Department Of The Interior, Washington, D. C., Bureau Of Outdoor Recreation;
National Recreation And Park Association, Washington, D. C.
EDRS mf
Superintendent Of Documents, U. S. Government Printing Office, Washington, D. C. 20402 (\$0.40).

Descriptors: exceptional child services; handicapped children; recreational facilities; design needs; multiply handicapped; recreation; physically handicapped; special health problems; individual characteristics; playgrounds; swimming pools; camping; agency role; visually handicapped; natural sciences; sanitary facilities; state agencies; private agencies; aurally handicapped; mentally handicapped; emotionally disturbed

The requirement that the handicapped be given special consideration as prerequisite to state participation in the Land and Water Conservation Fund Program is stated, and the following groups of handicapped are specified: the physically, visually and aurally handicapped, and those persons with special health problems; the mentally retarded; the emotionally disturbed; and the multiply handicapped. Their limitations and what can be done in general and in research to help are discussed. Modification of playgrounds and facilities and equipment for swimming, camping, fishing and boating is described; and national, state, and private agencies in several areas which can help are mentioned and their addresses are given. Case histories are provided of a self guiding nature trail in Aspen, Colorado, camping in San Francisco, California, and adaptation of recreation facilities in New York State (including park planning, access, toilet facilities, swimming pools, picnic areas, play areas, and miscellaneous facilities). Sixty-four references are cited. (JD)

ABSTRACT 11748

EC 01 1748 ED 029 439
Publ. Date Jul 67 40p.
Making Facilities Accessible to the Physically Handicapped.

New York State University, Albany, Construction Fund
Vocational Rehabilitation Administration (DHEW), Washington, D. C.
EDRS mf, hc
651-T-67
State University Construction Fund, 194 Washington Avenue, Albany, New York 12210.

Descriptors: exceptional child education; handicapped children; design needs; educational facilities; campus planning; college buildings; facility guidelines; dormitories; sanitary facilities; building design; physically handicapped; visually handicapped; aurally handicapped; parking facilities; fire protection

Guidelines on performance criteria for the State University of New York consider two main types of handicapped: the ambulant and semi-ambulant, including some physically handicapped, the visually and aurally handicapped, and persons with cardiac conditions; and persons confined to wheelchairs. The handicapped and planning for them are discussed. Specifications are detailed for the following aspects of exterior design: entrances, ramps, stairs, doors, walks, intersections, gratings and manholes, parking, and bus service. Interior design criteria cited are for general university facilities, restrooms, bedrooms, stairs, elevators, doors, conveniences, and fire protection. Persons involved in or contributing to the study are named, and 19 references are listed. (JD)

ABSTRACT 11990

EC 01 1990 ED 031 022
Publ. Date 68 53p.
Yukor, Harold E. And Others
The Modification of Educational Equipment and Curriculum for Maximum Utilization by Physically Disabled Persons; Design of a School for Physically Disabled Students.
Human Resources Center, Albertson, New York
Office Of Education (DHEW), Washington, D. C.
EDRS mf, hc

Descriptors: exceptional child education; physically handicapped; design needs; building design; architectural programming; architectural elements; doors; corridors; flooring; lighting; classroom design; chalkboards; equipment storage; science laboratories; library facilities; dining facilities; recreational facilities; swimming pools; sanitary facilities; parking areas

Elements of modified school design for the physically disabled are considered, including mobility, classrooms, science laboratories, applied skill areas, the library, the swimming pool, and sanitary facilities. Also discussed are the cafeteria (food service, seating, and other considerations), recreational areas (play grounds, gymnasium-auditorium, and auditorium), closets and storage areas (clothing storage, lockers, and supplies and equipment storage), and parking

areas (parking lots and loading areas). (JD)

ABSTRACT 20137

EC 02 0137 ED N.A.
Publ. Date Mar 69 12p.
Gust, Tim, Comp., And Others
References Concerning Administrative, Attitudinal and Architectural Access to Higher Education for the Handicapped, Volume 3, Number 8.
Pittsburgh University, Pennsylvania, School Of Education;
Commonwealth Of Pennsylvania, Harrisburg, Bureau Of Vocational Rehabilitation
EDRS not available
University Of Pittsburgh, Research And Training Center In Vocational Rehabilitation, Pittsburgh, Pennsylvania 15212.

Descriptors: exceptional child services; physically handicapped; visually handicapped; aurally handicapped; administrator attitudes; administrative policy; building design; physical design needs; bibliographies; college students; vocational rehabilitation

Listed are 94 references concerning administrative and attitudinal aspects and 87 references concerning architectural design for the handicapped. Included are articles on rehabilitation, school children, college students, the aged, blind, deaf, and physically handicapped. (LE)

ABSTRACT 20190

EC 02 0190 ED 031 858
Publ. Date Apr 68 6p.
Special.
Council For Exceptional Children, Washington, D. C.
EDRS mf
From CEC Selected Convention Papers From The Annual International Convention (46th, New York City, April 14-20, 1968).

Descriptors: exceptional child education; handicapped children; conference reports; design needs; educational facilities; teacher education; abstracts

The special education presentation is concerned with the process of design in special education facility planning by Alan Abeson. Major factors, especially effective communication between the teacher and the designer architect, are presented which influence the implementation of effective designs for the special classroom environment. Included in this area is an abstract by Vera Weisz on an article concerning the program for the exceptional child of Garland Junior College. This unit of reports is available in microfiche. (WW)

ABSTRACT 20243

EC 02 0243 ED N.A.
Publ. Date (66) 77p.
Planning a Special Education Building for Chester County, Pennsylvania.
Chester County Board Of School Directors, West Chester, Pennsylvania
Office Of Education (DHEW), Washington, D. C., Bureau Of Elementary And Secondary Education

EDRS not available

Stanley K. Landis, County Superintendent Of Schools, County Office Building, Market & New Streets, West Chester, Pennsylvania 19380.

Descriptors: exceptional child education; trainable mentally handicapped; minimally brain injured; emotionally disturbed; physically handicapped; visually handicapped; aurally handicapped; educational facilities; educational equipment; instructional staff; student transportation; program planning; program proposals; mentally handicapped; learning disabilities; handicapped children; classroom design; Chester County; Pennsylvania

The problems faced by Chester County are divided into, and discussed in the four main areas of facilities, equipment, staff, and transportation. Federal funds enabled ten consultants to be utilized and copies of their suggestions are included as are five graphs and maps. Educational programs for the trainable mentally retarded, the brain injured, the socially and/or emotionally disturbed, and the physically, visually, and auditorily handicapped are described. (Author/JM)

ABSTRACT 20245

EC 02 0245 ED N.A.
Publ. Date Apr 66 32p.
Preliminary Design; Mental Retardation Center.
Oregon University, Portland, Medical Center
EDRS not available
University Of Oregon Medical Center, 3181 S. W. Sam Jackson, Portland, Oregon 97201.

Descriptors: exceptional child services; building design; clinics; spatial relationship; physical therapy; occupational therapy; offices (facilities); laboratories; sanitary facilities; classrooms; dining facilities; equipment storage; dentistry; ophthalmology; heating; building materials; plumbing; mentally handicapped

A plan for a mental retardation center is presented which involves program, site planning, design solution with reference to form, scale, materials, planning, orientation, observation, audiovisual systems, and landscaping. Room specifications are given for medical evaluation, behavioral evaluation, behavioral modification, occupational therapy, physical therapy, otolaryngology (speech and hearing), neurology and E.E.G., observation, and an entrance lobby. Also considered are space allotments (square footage) for the following: interview and social services, staff facilities, storage and garbage disposal, parent apartments, lobby space, dentistry, ophthalmology, medical examination, behavioral science unit, laboratories, observation mezzanine, patient recreation and patient-parent recreation areas, dining and kitchen facilities, in-patient facilities, staff offices, classrooms, study and conference rooms, administration, business office, service rooms, staff and student

cafeteria, and visiting staff rooms. Physical plant specifications are included as well as architectural site plans. (LL)

ABSTRACT 20246

EC 02 0246 ED N.A.
Publ. Date Nov 65 86p.
Proceedings of the National Institute on Making Buildings and Facilities Accessible to and Usable by the Physically Handicapped. (Chicago, Illinois, November 21-24, 1965).
National Society For Crippled Children And Adults, Chicago, Illinois
Vocational Rehabilitation Administration (DHEW), Washington, D. C.
EDRS not available
The National Society For Crippled Children And Adults, 2023 W. Ogden Avenue, Chicago, Illinois 60612.

Descriptors: exceptional child services; building design; physically handicapped; community attitudes; standards; community action; insurance programs

This report, in the form of a series of speeches, indicates the need to use new architectural concepts in the development of facilities for the physically disabled. The problem of developing and implementing designs, the attitudes of the community and the handicapped toward each other, and the architectural barriers program in communities are discussed. The usefulness of building codes in their present form and the relationship of insurance to safety are considered. Reports of discussion groups are included. (KN)

ABSTRACT 20381

EC 02 0381 ED N.A.
Publ. Date 66 58p.
Proceedings of Architectural Barriers Conference (Ilikai Hotel, Honolulu, Hawaii, November 28, 29, 30, 1966).
Hawaii State House Of Representatives, Honolulu;
Hawaii University, Honolulu, College Of General Studies
Governor's Committee On Employment Of The Handicapped, Honolulu, Hawaii
EDRS not available
University Of Hawaii, College Of General Studies, 1801 University Avenue, Honolulu, Hawaii 96822.

Descriptors: exceptional child services; building design; rehabilitation; physically handicapped; visually handicapped; handicapped children; unemployment; employment problems; standards; design needs; transportation; costs

Presented in this report are the proceedings of a governor's conference on the creation of public awareness toward the elimination of physical barriers which limit the mobility, employment, comfort and safety of the handicapped. A further goal was to lay the foundation for a state wide program of county watchdog committees. Discussions are presented by both handicapped and nonhandicapped speakers and focus on community attitudes, practical considerations (buildings and transportation), and economic considerations in eliminating architectural barriers. (PF)

ABSTRACT 20392

EC 02 0392 ED N.A.
Publ. Date Sep 69 4p.
Shores, Richard E.; Haubrich, Paul A.
Effect of Cubicles in Educating Emotionally Disturbed Children.
EDRS not available
Exceptional Children; V36 N1 P21-4
Sept 1969

Descriptors: exceptional child research; emotionally disturbed; attention control; academic performance; behavior change; environmental influences; classroom arrangement

The effect of cubicles in educating emotionally disturbed children was evaluated in terms of promoting attending behavior and academic rate of reading and arithmetic. A significant difference was found in attending behavior favoring use of the booths, and nonsignificant differences were found with academic behaviors, indicating that attending behavior was increased by utilizing cubicles, but academic rate was not so influenced. (Author)

ABSTRACT 20683

EC 02 0683 ED N.A.
Publ. Date (69) 60p.
Lauder, Ruth
The Goal Is: Mobility! Background Information on Environmental Barriers and Transportation.
Social And Rehabilitation Service (DHEW), Washington, D. C.
EDRS not available
U. S. Department Of Health, Education, And Welfare, Social And Rehabilitation Service, Washington, D. C. 20201.

Descriptors: exceptional child research; physically handicapped; physical facilities; design needs; legislation; physical environment; human engineering; transportation; conference reports; recreational facilities; cooperative programs

The report on persons with physical disabilities considers housing; streets, buildings and other public places; transportation, both urban and intercity; recreation, indoor and outdoor; recommendations that should be made concerning legal questions and educational needs; and the process of reporting and publicizing the conference and its aims. Selected references are included, most with brief annotations. (LE)

ABSTRACT 20689

EC 02 0689 ED N.A.
Publ. Date Mar 63 55p.
Program of Requirements for a School for Severely Physically Handicapped for Human Resources Foundation.
Educational Research Services, Inc., White Plains, New York
EDRS not available
Educational Research Services, Inc., 7 Holland Avenue, White Plains, New York 10603.

Descriptors: exceptional child education; physically handicapped; program guides; educational facilities; school design; space utilization; facility require-

ments; interior space; classroom design; educational equipment; equipment standards; arts centers; homemaking education; music facilities; instructional materials centers; sanitary facilities; science facilities; equipment storage

Three special requirements are listed for this small experimental school for physically handicapped children: all spaces must serve several purposes; much instruction must be individual rather than regular class groupings; and general considerations which should characterize any good school become essential to handicapped children. These conditions imply flexibility in design. Twelve suggestions for school planning with emphasis for the physically handicapped include: provide as much flexibility in space as possible; plan to have rooms larger than conventional classrooms for possible later expansion; have teaching station larger than usual; provide adequate storage space throughout structure; provide conference rooms and work spaces for teacher planning; have ample electrical outlets in all rooms; arrange for spaces in school component for independent study and research; where feasible, design spaces for multiple use; structural design should permit easy access to spaces where utilities might be needed; anticipate continuous technological obsolescence of teaching devices; have movable furniture for flexibility; and provide movable storage units. Ten illustrations are provided. (Author)

ABSTRACT 20829

EC 02 0829 ED 032 696
Publ. Date 69 67p.
Gordon, Ronnie
The Design of a Pre-School Learning Laboratory in a Rehabilitation Center.
Institute Of Rehabilitation Medicine, New York University, New York, Medical Center
EDRS mf, hc

Descriptors: exceptional child education; physically handicapped; classroom design; instructional materials; classroom furniture; offices (facilities); facility requirements; physical design needs; furniture design; special health problems; physical facilities; space utilization; preschool children; design needs; educational facilities

A developmental setting for multi-handicapped preschool children and the physical layout of the classroom are described. Photographs and drawings of specially designed educational equipment, such as a shallow sand and water table adapted for wheelchair-bound children and an adjustable easel that allows armless children to paint with their feet, show the use of the materials and their design construction. Commentary is included which describes the function and purpose of each learning material along with the history of the school, its medical setting, and the educational philosophy of the program. (WW)

ABSTRACT 20830

EC 02 0830 ED 032 697
 Publ. Date 67 207p.
 Goldsmith, Selwyn
Designing for the Disabled.
 Royal Institute Of British Architects,
 London
 EDRS not available
 RIBA, 66 Portland Place, London W1,
 England.

Descriptors: exceptional child services; physically handicapped; building design; architectural programing; facility requirements; design needs; space utilization; physical facilities; facility guidelines; doors; heating; sanitary facilities; lighting; communications; flooring; physical design needs; psychological design needs

Implications of the merits of normality and independence for the disabled, and their relevance to architectural design criteria are discussed. The introduction reflects the philosophical approach to the design and construction of public buildings and housing. Nine principle sections provide data and recommendations on the following topics: anthropometric considerations of disabled people; building elements and finishes (staircases, handrails, windows, doors, floor finishes); service installations (refuse disposals, heating, electrical services, communications, mechanical installations); general spaces (entrances, kitchens, living and dining rooms, bedrooms, sanitary accommodations, laundry, garages); public buildings (office buildings, transport, health, recreation, auditoriums, schools, hotels); and domestic housing (planning of dwellings, check list of recommendations). An appendix lists cost implications, definitions of terms, selected references, bibliographical references, and organizations associated with the welfare of the disabled. Illustrations with dimensions given in feet and metric equivalents are provided. (WW)

ABSTRACT 20854

EC 02 0854 ED 025 082
 Publ. Date 68 106p.
 Crane, Helen B., Ed.
Easter Seal Guide to Special Camping Programs.
 National Easter Seal Society For Crippled Children And Adults, Chicago, Illinois, Task Force On Special Camping
 EDRS not available
 The National Easter Seal Society For Crippled Children And Adults, 2023 West Ogden Avenue, Chicago, Illinois 60612 (e-45, 1:5m:668, \$1.50).

Descriptors: exceptional child education; recreation; program planning; administration; standards; camping; handicapped children; resident camp programs; equipment standards; counselor qualifications; environmental criteria; budgeting; recreational activities; facility guidelines; administrative policy; administrator guides; health personnel; safety; personnel policy

Intended for organizations having or planning to establish resident camping programs for people with special needs, this guide supplements the American Camping Association's Standards. The philosophy, aims, and objectives of specialized camping programs are considered and the following are discussed: administration, camp site selection, legal matters, insurance, budget and finance, buildings and facilities, admission and followup procedures, personnel, health and safety, and programing and activities. The appendix includes samples of forms and records used in special camping programs and standards specified by the United States of America Standards Institute for making buildings and facilities accessible to and usable by the physically handicapped. A 33-item annotated bibliography and a list of national organizations and their addresses are also included. (LE)

ABSTRACT 20939

EC 02 0939 ED 032 664
 Publ. Date Jan 68 57p.
Housing for the Physically Impaired; a Guide for Planning and Design.
 Department Of Housing And Urban Development, Washington, D. C., Housing Assistance Administration
 EDRS mf
 Superintendent Of Documents, U. S. Government Printing Office, Washington, D. C. 20402 (\$0.45).

Descriptors: exceptional child services; physically handicapped; low rent housing; architectural programing; design needs; building design; federal aid; incidence; site selection; parking areas; landscaping; doors; corridors; sanitary facilities; equipment storage; food handling facilities; climate control; lighting; telephone communication systems; community rooms; safety equipment; older adults; United States Housing Act of 1937

Problems involved in providing homes for independent living for the physically handicapped, health impaired, or older adults are considered. Basic concepts of low rent housing preface a discussion of neighborhoods and site selection, access, ramps, pedestrian walks, parking, landscaping, and lighting. Guides for building design focus on entrances, corridors, stairs, elevators, incinerator chutes, laundry facilities, general storage, and mailboxes. Specifications are suggested for living units including the living room, kitchen, bedroom, bathroom, and storage area; the design of windows, doors, hallways, floors, lighting and heating units, and custodial quarters, and the provision of telephones, televisions, an emergency signal system, and hot water are also treated. Recommendations are made for the following community areas: lounge, recreation room, kitchen, craft area, library, health clinic, washrooms, public telephones, drinking fountains, vending machines, and other areas. A bibliography lists 41 references. (RJ)

ABSTRACT 20988

EC 02 0988 ED N.A.
 Publ. Date 66 22p.
Outdoor Recreation Facilities for the Disabled.
 Georgia Department Of State Parks, Atlanta
 EDRS not available
 Georgia Department Of State Parks, 7 Hunter Street, S. W., Atlanta, Georgia 30334.

Descriptors: exceptional child services; physically handicapped; recreational facilities; parks; camping; state recreation legislation; outdoor education; recreational activities; park design; state programs; Georgia

A plan for a centrally located state park designed to meet the needs of physically handicapped individuals in Georgia is presented including information on its purpose, location, activities, facilities, background, types of accommodations and definitions of the terms, disabled and outdoor recreation. Maps showing the location and service areas of the park, and diagrams showing facility location and group camp structures are provided. (RD)

ABSTRACT 21288

EC 02 1288 ED 027 721
 Publ. Date 68 5p.
Design Criteria for Public School Plants Accommodating the Physically Disabled.
 Missouri State Department Of Education, Jefferson City, School Building Services
 EDRS mf,hc

Descriptors: exceptional child education; architectural programing; building design; construction needs; criteria; design needs; facility guidelines; physical design needs; physically handicapped; school planning; school buildings

Criteria are presented for implementation in the design and construction of school buildings and facilities in order to obviate hazards to individuals with physical disabilities. Accommodations for the physically handicapped are considered for the following: public walks, parking lots, ramps with gradients and handrails, entrances; elevators or ramps for multiple story buildings, doors and doorways, stairs and handrails, toilet rooms and facilities, water fountains, and floors. (FS)

ABSTRACT 21335

EC 02 1335 ED 028 617
 Publ. Date 66 217p.
Educational Facilities for the Visually Handicapped.
 California University, Berkeley, Department Of Architecture
 EDRS mf,hc

Descriptors: exceptional child education; architecture; design needs; educational facilities; educational specifications; equipment; facility requirements; individual needs; mobility; multiply

handicapped; perception; social environment; space orientation; student attitudes; therapeutic environment; visually handicapped

A brief description of the work process, and the results of the study by eighteen third year students in the Department of Architecture, University of California, Berkeley, is presented. The problem, process, and organizational procedure of the study are included. Additional information includes: research phase, requirements, interactions, decomposition and structuring, form solutions and diagramming, final form solutions, and summary. The importance of architectural form and organization to the blind child is emphasized. The degree and nature of separation of groups and of individual blind children is noted to play an important part in effective teaching and therapy. Information in these areas and many others is accumulated and synthesized into an architectural reflection of the factors needed to develop the multiply handicapped blind child to his fullest mental and physical potential. (RK)

ABSTRACT 21498

EC 02 1498 ED N.A.
Publ. Date 67 58p.
Bayes, Kenneth

The Therapeutic Effect of Environment on Emotionally Disturbed and Mentally Subnormal Children; A Kaufmann International Design Award Study, 1964-66.

EDRS not available
Kenneth Bayes, 37 Duke Street, London W1, England.

Descriptors: exceptional child research; emotionally disturbed; mentally handicapped; environmental influences; architectural programming; therapeutic environment; space utilization; visual perception; behavior; building design; corridors; furniture arrangement; color planning; research needs; tactile perception; flexible facilities; research reviews (publications)

Environmental influences on emotionally disturbed and mentally handicapped children and the relationship between environment and therapy are investigated. The nature of space and of perception, animal and human behavior, and architectural psychology are described; also described are subjects relating to planning and form: planning for social relationships, transition between areas, avoidance of ambiguity, architectural character and scale, consideration of the size of groups, corridors and circulation, room size and shape, flexibility, child participation, pattern and visual stimuli, furniture, and staff needs. Topics relating to color examined are color perception, the psychophysiological effect of color, color preferences, color schemes, and color and form. Sound, texture, temperature, time, smell, and symbolic significance are other sensory perceptions discussed; research methods and problems and research needs are suggested. A list of persons and institutions

visited or consulted about environmental therapy is provided. (RP)

ABSTRACT 21649

EC 02 1649 ED N.A.
Publ. Date 66 376p.
Chapman, Robert H.

Functional Space and Facilities Program for a State School for the Mentally Retarded at Syracuse, New York.

EDRS not available
New York State Department Of Mental Hygiene, 119 Washington Avenue, Albany, New York 12225.

Descriptors: exceptional child services; mentally handicapped; program descriptions; program administration; administrative personnel; facility guidelines; facility requirements; space utilization; personnel needs; special programs; demography; institutionalized (persons); agency role; college cooperation; program guides; institutions; institutional personnel; institutional facilities; program planning; Syracuse; New York

Three program recommendations are combined into one booklet with five specific sections. The life services area identifies the position of the state school among services for the retarded and presents demographic considerations. The section on residents and habilitation programs involves the relationship of programs to governmental agencies and institutions of higher learning, medical services, and manpower needs (attendants, supervisors, managers, medical personnel, and volunteer workers). A discussion of architectural requirements covers the living unit, habilitation areas, meeting places, and needed equipment. Included are considerations for each specific geographic region involved, with demographic considerations, life services suggestions, and relationships to medical schools and colleges. Also detailed are staff needs and space requirements (recreation, parking, medical services, and living needs services) for each region. Informative appendixes, diagrams, maps, and tables are provided. (JM)

ABSTRACT 21673

EC 02 1673 ED 021 303
5p.

Gust, Tim; Shaheen, Elaine
References Concerning Architectural Barriers in Higher Education.
Pittsburgh University, Pennsylvania, Research And Training Center In Vocational Rehabilitation
Social And Rehabilitation Service (DHEW), Washington, D. C.
EDRS mf, hc

Descriptors: bibliographies; building design; college buildings; physically handicapped

A bibliography of references pertaining to architectural barriers to the handicapped is presented. The references center on the importance of architectural design for universities and colleges which make buildings and facilities ac-

cessible to, and usable by, the physically handicapped. (NS)

ABSTRACT 21731

EC 02 1731 ED N.A.
Publ. Date 69 4p.
Nugent, Timothy J.

Opportunities Unreachable.

EDRS not available
Safety; V5 N4 P14-7 Sep-Oct 1969

Descriptors: exceptional child services; physically handicapped; amputees; quadriplegia; handicapped children; mobility; design needs; building design; public facilities; facility improvement; self care skills

In order to serve the physically handicapped or those individuals who are severely restricted in self ambulatory activities, including those confined to wheelchairs, architectural designs and practices which allow this group of people to move with independence and dignity are discussed. An illustrative example of public buildings and facilities made to accommodate the severely, permanently disabled focuses on the University of Illinois and the communities of Champaign and Urbana, Illinois. Anecdotal records of experiences with the construction of appropriately designed buildings and renovations of older buildings and public pathways and the resulting use by University of Illinois students and community citizens are included. (WW)

ABSTRACT 21907

EC 02-1907 ED N.A.
Publ. Date 69 8p.

Dybwad, Gunnar
Planning Facilities for Severely and Profoundly Retarded Adults.

Walter E. Fernald State School, Waverly, Massachusetts
EDRS not available
National Association For Retarded Children, 420 Lexington Avenue, New York, New York 10017.

Descriptors: exceptional child services; custodial mentally handicapped; trainable mentally handicapped; institutional facilities; physical facilities; facility requirements; state schools; residential schools; institutional environment; physical design needs; building plans; physical environment; adults; Walter E. Fernald State School

New physical facilities at the Walter E. Fernald State School for the retarded in Waverly, Massachusetts are being planned in accordance with the following principles of design: creation of small housing units of integrated spatial arrangement designed for the daily living needs of small numbers of patients; great flexibility for varied utilization of space; creation of a stimulating environment with meaningful uses of spaces; and avoidance of undesirable overstimulation. (MS)

ABSTRACT 21933

EC 02 1933 ED 036 912
Publ. Date Jun 69 79p.
Herron, Charles E. And Others

A Compilation of Adapted Equipment for Physically Handicapped Children: Historical References and Implications for Utilization in Physical Education as a Component of Special Education.

Alabama University, University, Department Of Special Education
EDRS not available
Charles E. Herron, University Of Alabama, Department Of Special Education, University, Alabama 35486.

Descriptors: exceptional child education; physically handicapped; physical education; athletic equipment; incidence; instructional materials; adjustment (to environment)

The history of physical education, a philosophy of education, the need for a study of adapted equipment, and a definition of terms are presented. A selected review of the literature and the study methodology precede a list of equipment and apparatus. Drawings of 60 kinds of material are provided, some accompanied by dimensions, composition, and instructions for assembly. Conclusions are given concerning physical education equipment for the physically handicapped; references are cited. (RJ)

ABSTRACT 21944

EC 02 1944 ED 036 923
Publ. Date Apr 69 69p.
Educational Specifications for Hope School for Exceptional Children and Youth.
Jackson County Public Schools, Marianna, Florida
EDRS mf,hc

Descriptors: exceptional child education; mentally handicapped; educational specifications; school design; program proposals; physical environment; physical design needs; physical facilities; school construction; space utilization; classroom design

A presentation of the Hope School's physical plant and program specifications is introduced with a listing of the specifications committee, a history of the school, the needs of the children served, and a philosophy of teaching mentally handicapped children. Areas discussed are school-wide specifications, the administrative complex, the diagnostic room, layout for the primary developmental classroom, a learning environment complex, and a training readiness workshop. Additional considerations are for custodial storage space, school lunch services, the site plan, space requirements, space relationship diagrams, and an overall evaluation of the proposal. A glossary of terms and a bibliography are provided. (JM)

ABSTRACT 21962

EC 02 1962 ED 036 941
Publ. Date (69) 22p.
An Adaptive Playground for Physically Disabled Children with Perceptual Deficits; The Magruder Environmental Therapy Complex.
Orange County Board Of Public Instruction, Orlando, Florida

Office Of Education (DHEW), Washington, D. C., Bureau Of Elementary And Secondary Education
EDRS mf,hc

Descriptors: exceptional child education; physically handicapped; perceptual motor coordination; playgrounds; recreational facilities; preschool children; design needs; motor development; environmental criteria; physical facilities

Designed as a specialized play area for physically handicapped preschool children with perceptual deficits, the Magruder Environmental Therapy Complex (ETC) is described as a means to create an environment in which these children could function freely. Pictures are used to show children using the equipment and the architectural aspects of construction. A brief summary, the problem defined, the goal of ETC, the basic perceptual motor experiences of ETC, principle features of ETC and physical problems, testing plans designed to evaluate the effects of ETC, and early observations by teachers, therapists and aides indicating the benefits of the free, unstructured play area are detailed. (WW)

ABSTRACT 21964

EC 02 1964 ED 036 943
Publ. Date (68) 87p.
Planning a Special Education Building for Chester County, Pennsylvania.
Chester County Schools, West Chester, Pennsylvania
Office Of Education (DHEW), Washington, D. C., Bureau Of Elementary And Secondary Education
EDRS mf,hc
BR-66-2125

Descriptors: exceptional child education; handicapped children; program improvement; educational facilities; county school systems; student placement; mentally handicapped; learning disabilities; emotionally disturbed; physically handicapped; visually handicapped; aurally handicapped; student transportation; program planning; community; educational equipment; personnel; architectural programing; school design; Chester County (Pennsylvania)

Chester County (Pennsylvania) is described in terms of its demography and its school system; its special education program is also reviewed. Placement and program organization are outlined for the trainable mentally retarded, brain injured, socially and emotionally disturbed, and physically, visually, or auditorially handicapped. The need for program improvement is explained, including the need for facilities, equipment, staff, and transportation. The planning process and conclusions are discussed as are 14 recommendations for the design of a county special education facility. Nine consultants' opinions are presented concerning a central facility as opposed to dispersion of classes; 10 consultants' reports are appended. An additional flier provides the architectural plans. (JD)

ABSTRACT 22031

EC 02 2031 ED 036 044
Publ. Date 69 28p.
New Architecture for Mental Health; New York State Health and Mental Hygiene Facilities Improvement Corporation--Report to the Governor, 1969.
New York State Health And Mental Hygiene Facilities Improvement Corporation, Albany
EDRS mf,hc

Descriptors: exceptional child services; mentally handicapped; emotionally disturbed; drug addiction; construction programs; rehabilitation centers; health facilities; building design; facility improvement; mental illness; state schools; New York

The accomplishments of The Health and Mental Hygiene Facilities Improvement Corporation during the past years in creating needed hospitals and health centers for the mentally disabled is documented. The new facilities show awareness of architectural trends and new objectives in design in order to better serve the needs of the patient. Pictures and layout of the newly or partly completed rehabilitation centers, facilities for emotionally disturbed children, and buildings for the mentally retarded show the effort to increase therapeutic options at new or redesigned facilities. A progress report on new facilities over \$500,000 is given as are construction projects for the control of narcotic addiction. (WW)

ABSTRACT 22067

EC 02 2067 ED 034 377
Publ. Date Mar 69 102p.
Bednar, Michael J.; Haviland, David S.
The Role of the Physical Environment in the Education of Children with Learning Disabilities.
Rensselaer Polytechnic Institute, Troy, New York, Center For Architectural Research
Educational Facilities Labs, Inc., New York, New York
EDRS mf

Descriptors: exceptional child education; environmental influences; facility case studies; interior space; learning disabilities; light; perceptually handicapped; physical environment; psychomotor skills

Current thinking on the role of the physical environment in special education is summarized in the report. The material has been synthesized into a position that has been developed through widespread contacts with special educators and architects interested in the problem. The paper develops this position in nine topical areas: the concern, exceptionality, learning disabilities, special education, role of environment, environmental variables, environmental conceptualizations, program factors, and directions. The primary attempt has been to underscore the issues and to lay some ground-work for future efforts. (RK)

ABSTRACT 22073

EC 02 2073 ED 032 739
 Publ. Date Jan 66 34p.

A Master Plan Program of Requirements for the Francis Jefferson Coates Country Campus of the Missouri School for the Blind.

Educational Research Services, Inc.,
 White Plains, New York;
 Pearce And Pearce, Inc., St. Louis,
 Missouri
 Missouri State Department Of Educa-
 tion, Jefferson City
 EDRS mf,hc

Descriptors: exceptional child educa-
 tion; visually handicapped; building de-
 sign; campus planning; educational
 specifications; facility case studies; facil-
 ity expansion; facility guidelines; human
 engineering

Facility requirements are presented for
 the indoor and outdoor living and learn-
 ing facilities and areas of the proposed
 Francis Jefferson Coates Country Cam-
 pus of the Missouri School for the Blind
 in St. Louis. The requirements were
 developed in view of the major goals
 and purposes of the institution, to pro-
 vide exposure to a variety of learning and
 recreational experiences, which are not
 generally available within the confines
 of the city school, and thus broaden the
 awareness of students about nature and
 outdoor activities in their preparation
 for life. Diagrammatic representations
 of proposed facilities and area relations
 are included. (FS)

ABSTRACT 22084

EC 02 2084 ED 024 249
 Publ. Date 66 18p.

Making Facilities Accessible for the Physically Handicapped. Account Number 1 of the Public Acts of 1966.
 Michigan State Legislature, Lansing
 EDRS mf,hc

Descriptors: physically handicapped;
 building design; parking areas; design
 needs; sanitary facilities; environmental
 criteria

A physical handicap is defined as an
 impairment which affects an individual
 to the extent that special facilities are
 needed to provide for his safety. Facil-
 ities include the special design of parking
 lots, building approaches and entrances;
 stairs, ramps, doors, and multilevel
 floors; corridors; and rooms with sloping
 floors, fixed seats, or both. Other safety
 areas include special consideration of
 sanitary facilities, drinking fountains,
 telephones, location of switches, room
 identification, and installment of eleva-
 tors. (LD)

ABSTRACT 22346

EC 02 2346 ED N.A.
 Publ. Date Mar 70 5p.

Mooney, Lawrence P.
**Construction Guidelines for Physical
 Therapy Departments.**

EDRS not available
 Physical Therapy; V50 N3 P349-53 Mar
 1970

Descriptors: program planning; physical
 therapy; physical therapists; facility
 guidelines; health facilities

Guidelines are suggested for physical
 therapists who are involved in planning
 or remodeling health facilities. Planning
 processes are described with information
 concerning the therapist's role at each
 stage. Data provided by the hospital and
 architect are discussed as is the role of
 the project planning coordinator. (RJ)

ABSTRACT 22434

EC 02 2434 ED 034 385
 Publ. Date 67 66p.

Yuker, Harold E., And Others

**The Modification of Educational
 Equipment and Curriculum for Maxi-
 mum Utilization by Physically Disa-
 bled Persons. Educational and School
 Equipment for Physically Disabled
 Students.**

Human Resources Center, Albertson,
 New York
 EDRS mf,hc
 OEG-2644 HRS-9

Descriptors: exceptional child educa-
 tion; physically handicapped; audiovi-
 sual aids; auditoriums; crafts rooms;
 dining facilities; educational equipment;
 educational facilities; facility require-
 ments; furniture; gymnasiums; library
 facilities; mobility aids; science facil-
 ities; study facilities; wheel chairs

Special education and school equipment
 for handicapped students, particularly
 for those in wheel chairs, are outlined
 with suggestions for increasing the qual-
 ity and effectiveness of special education
 instruction. Guidelines are given for the
 provision of an adequate learning envi-
 ronment for handicapped students. Spe-
 cial furniture and equipment is dis-
 cussed including tables and desks, book-
 cases and storage cabinets, chalkboards,
 audiovisual and communication aids,
 and mobility and postural equipment.
 Equipment needs in the different physi-
 cal and functional areas within the
 school discussed included classrooms
 and laboratories, cafeterias, and recrea-
 tional facilities. A reference list and
 appendix are provided. (TG)

ABSTRACT 22569

EC 02 2569 ED N.A.
 76p.

**(Suggestions and Solutions to Prob-
 lems of Maneuverability for the Physi-
 cally Limited Homemaker.)**

Nebraska Heart Association, Omaha
 Nebraska University, Lincoln, College
 Of Agriculture And Home Economics
 EDRS not available
 Nebraska Heart Association, 430 South
 40th Street, Omaha, Nebraska 68131.

Descriptors: physically handicapped;
 physical facilities; homemaking skills;
 home management; housewives; clean-
 ing; self care skills; object manipulation;
 food handling facilities; sanitary facil-
 ities; clothing; design needs; equipment
 storage

A series of 10 pamphlets is designed to
 give the physically limited homemaker
 suggestions and practical solutions to

problems of maneuverability in the
 home. Each bulletin is illustrated; topics
 include a discussion on easy to use
 kitchens, suggestions for an easy to use
 mixing center, ideas on an easy to use
 cooking and serving center, materials
 geared for an easy to use sink center,
 and suggestions on kitchen storage facil-
 ities which require no stooping or
 stretching. Other bulletins cover the sub-
 jects of food and the family, fashions for
 physically limited women, ways to
 streamline household tasks, methods to
 make the bathroom safe and usable, and
 suggestions on the convenient organiza-
 tion of cleaning equipment. (WW)

ABSTRACT 22661

EC 02 2661 ED N.A.
 Publ. Date (68) 82p.

**Architectural Report: Mental Retar-
 dation Center.**

Baylor University, Houston, Texas Col-
 lege Of Medicine;
 Texas Medical Center, Houston;
 Texas Children's Hospital, Houston
 EDRS not available

Director Of Publications, Baylor Uni-
 versity College Of Medicine, 1200 M. D.
 Anderson Street, Houston, Texas 77025.

Descriptors: exceptional child services;
 mentally handicapped; health facilities;
 medical services; institutional facilities;
 architectural programming; building de-
 sign; space utilization; design needs;
 architecture; architectural elements

Architectural plans are introduced by
 discussions of the aims of the center,
 including team interaction, community
 orientation, training, research, treat-
 ment, coordinated services, parent-child
 relationship, patient load and process-
 ing, flexibility, flow, location, and envi-
 ronment. The design is broken down
 into the following areas: reception (lob-
 by, waiting, services), community care
 (examination and offices, day center,
 habilitation, dining areas, training areas,
 meeting areas), living unit (administra-
 tion, nurses' station and services, bed-
 rooms, lounge and play areas), and
 administration (reception, executive,
 service and training, conference facil-
 ities, business, records and data process-
 ing, and housekeeping). Included in the
 design analysis are the possibilities of
 growth, aspects of climate, visibility,
 approach, easy transition, problems of
 personnel mixing and flow, a summary,
 and the actual architectural plans. (JM)

ABSTRACT 22971

EC 02 2971 ED N.A.
 Publ. Date Jun 70 6p.

Witengier, Mary

**An Adaptive Playground for Physical-
 ly Handicapped Children.**

EDRS not available
 Physical Therapy; V50 N6 P821-6 Jun
 1970

Descriptors: exceptional child educa-
 tion; physically handicapped; play-
 grounds; perceptual motor coordination;
 preschool children; perceptual develop-
 ment; motor development; Magruder
 Environmental Therapy Complex

The Magruder Environmental Therapy Complex was designed to provide 15 closely interwoven experiences in perception and a continuum of perceptual motor experiences for physically handicapped preschool children. The child's motivation for play is capitalized upon. The report describes the development of the play complex, as yet not completed, and states that preliminary evaluation indicates increased motor achievement and greater endurance in some children. A more scientific evaluation is planned. Photographs of play equipment accompany the article. (KW)

ABSTRACT 23066

EC 02 3066 ED N.A.
Publ. Date 68 136p.
Gutman, Ernest M.; Gutman, Carolyn R.

Wheelchair to Independence: Architectural Barriers Eliminated.

EDRS not available
Charles C Thomas, 301-327 East Lawrence Avenue, Springfield, Illinois 62703 (\$6.75).

Descriptors: physically handicapped; architectural barriers; building design; wheel chairs; physical environment; interior design; campus planning; school design; home furnishings

Means of eliminating architectural barriers for wheelchair users, to help solve some problems of daily living, education, and employment, are suggested and recommended to architects and builders. Architectural obstructions in both residential and public buildings are outlined, together with solutions. The book discusses adaptations for the home (bathroom, bedroom, kitchen, dining room, floors, stairs), and various types of residences. Photographs illustrate many of the conveniences. Specifications for a made-to-order house for a wheelchair user are presented. Lists of recommended standards for public buildings and of motels with wheelchair units are included in a discussion of current building trends. A review of campus facilities at colleges and universities includes suggested specifications for structures and a list of institutions currently enrolling wheelchair students. Adaptations for public schools, hospitals, and the telephone are also suggested. (KW)

ABSTRACT 23297

EC 02 3297 ED 036 127
Publ. Date 66 15p.
Fearn, Donald

Architectural Barrier Program of the National Society for Crippled Children and Adults.

EDRS mf,hc
Speech Presented At National Research Conference On Architectural Psychology (2nd, Park City, Utah, 1966).

Descriptors: physically handicapped; architectural barriers; building design; design needs; facility guidelines; toilet facilities; public facilities

The environmental needs and problems of the physically handicapped are discussed, with particular concern for architectural barriers in present and future public buildings. Dialogue reveals the establishment of standards and constraints of which the public must become aware. Overviewed with emphasis are toilet facilities, recreational and cultural facilities. (TG)

ABSTRACT 23436

EC 02 3436 ED 041 407
Publ. Date May 67 69p.

Architectural Contributions to Effective Programming for the Mentally Retarded. Conference Report of the Architectural Institute (Denver, Colorado, May 15-16, 1967).

American Association On Mental Deficiency, Washington, D. C.;
American Institute Of Architects, Washington, D. C.;
National Association For Retarded Children, New York, New York
Rehabilitation Services Administration (DHEW), Washington, D. C., Division Of Mental Retardation
EDRS mf,hc
National Association For Retarded Children, 420 Lexington Avenue, New York, New York 10017.

Descriptors: exceptional child services; institutional facilities; architectural programming; design needs; mentally handicapped; building design; administration; architects; program planning; space utilization; residential programs; environmental influences; taxonomy; educable mentally handicapped; trainable mentally handicapped; custodial mentally handicapped

Conference participants consider the role of the architect and the programmer in planning and constructing facilities for the mentally handicapped. David Rosen discusses the design problems of state institutions with particular reference to the Woodbridge State School in New Jersey; Gunnar Dybwad describes

the need of the programmer for the architect; and Arnold Gangnes treats the need of the architect for the programmer. The architectural program is defined as a means of communication with the client by Edwin Cromwell, and the programming process is detailed by John Garber. Also provided are David Ray's and John Truemper's consideration of the programmer and architect in action and J. Eugene McKee's treatment of planning for community facilities. Two forewords, excerpts from informal discussions, and a list of registrants are included. (JD)

ABSTRACT 23484

EC 02 3484 ED N.A.
Publ. Date 66 200p.

Mueller, Conrad G.; Rudolph, Mae Light and Vision.

Time Incorporated, New York, New York
EDRS not available
LIFE, Time And Life Building, Rockefeller Center, New York, New York 10020.

Descriptors: light; vision; visual perception; color; optics; eyes; photography; glare; stereopsis; figural aftereffects; visual environment

The book records what science has learned through the ages about light and vision, describing the vital findings and charting the areas still to be explored. Concerned not only with the separate areas of light and vision but also with their interrelationships, it relates the spectacular growth of information in these fields in recent years. The introductory chapter describes vision as man's link with his world and relates interesting aspects regarding a variety of animals' eyes, with pictures and descriptions. Another chapter is concerned with the science of light, including the reflection and refraction of light, the spectrum diffraction and polarization, and wave theory of light. Further chapters compare the parts and functions of the eye to similar aspects of the camera (a brief history of photography, with reproductions of earliest pictures, is included); discuss the anatomy and physiology of vision; and discuss colors in vision and exploration of the spectrum. The final three chapters discuss the shades and the three dimensions of vision, and the function of the brain in vision. Numerous color and black and white photographs and drawings illustrate the text. (KW)

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